

HEALTH CONSEQUENCES OF HUNGER ON U.S. INFANTS AND CHILDREN

JOINT HEARING
BEFORE THE
SELECT COMMITTEE ON HUNGER
AND THE
SUBCOMMITTEE ON
HEALTH AND THE ENVIRONMENT
OF THE
COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES
NINETY-NINTH CONGRESS
FIRST SESSION

HEARING HELD IN WASHINGTON, DC,
MAY 23, 1985

Serial No. 99-3

Printed for the use of the Select Committee on Hunger

Serial No. 99-10

Printed for the use of the Committee on Energy and Commerce



U.S. GOVERNMENT PRINTING OFFICE

49-532 O

WASHINGTON : 1985

H361-84

H961-29.

SELECT COMMITTEE ON HUNGER

MICKEY LELAND, Texas, *Chairman*

TONY P. HALL, Ohio
BOB TRAXLER, Michigan
LEON E. PANETTA, California
THOMAS A. DASCHLE, South Dakota
VIC FAZIO, California
SAM GEJDENSON, Connecticut
PETER H. KOSTMAYER, Pennsylvania
SALA BURTON, California
BYRON L. DORGAN, North Dakota

MARGE ROUKEMA, New Jersey
BILL EMERSON, Missouri
SID MORRISON, Washington
BENJAMIN A. GILMAN, New York
COOPER EVANS, Iowa
ROBERT F. (BOB) SMITH, Oregon
DOUG BEREUTER, Nebraska

PROFESSIONAL STAFF

ERNEST R. LOEVINSOHN, *Staff Director*
MIRANDA G. KATSOYANNIS, *Deputy Staff Director*
RAYMOND W. KONAN, *Minority Staff Director*

COMMITTEE ON ENERGY AND COMMERCE

JOHN D. DINGELL, Michigan, *Chairman*

JAMES H. SCHEUER, New York
HENRY A. WAXMAN, California
TIMOTHY E. WIRTH, Colorado
PHILIP R. SHARP, Indiana
JAMES J. FLORIO, New Jersey
EDWARD J. MARKEY, Massachusetts
THOMAS A. LUKEN, Ohio
DOUG WALGREN, Pennsylvania
BARBARA A. MIKULSKI, Maryland
AL SWIFT, Washington
MICKEY LELAND, Texas
RICHARD C. SHELBY, Alabama
CARDISS COLLINS, Illinois
MIKE SYNAR, Oklahoma
W.J. "BILLY" TAUZIN, Louisiana
RON WYDEN, Oregon
RALPH M. HALL, Texas
DENNIS E. ECKART, Ohio
WAYNE DOWDY, Mississippi
BILL RICHARDSON, New Mexico
JIM SLATTERY, Kansas
GERRY SIKORSKI, Minnesota
JOHN BRYANT, Texas
JIM BATES, California

JAMES T. BROYHILL, North Carolina
NORMAN F. LENT, New York
EDWARD R. MADIGAN, Illinois
CARLOS J. MOORHEAD, California
MATTHEW J. RINALDO, New Jersey
WILLIAM E. DANNEMEYER, California
BOB WHITTAKER, Kansas
THOMAS J. TAUKE, Iowa
DON RITTER, Pennsylvania
DAN COATS, Indiana
THOMAS J. BLILEY, Jr., Virginia
JACK FIELDS, Texas
MICHAEL G. OXLEY, Ohio
HOWARD C. NIELSON, Utah
MICHAEL BILIRAKIS, Florida
DAN SCHAEFER, Colorado
FRED J. ECKERT, New York

WILLIAM MICHAEL KITZMILLER, *Staff Director*
SHARON E. DAVIS, *Chief Clerk/Administrative Assistant*
DONALD A. WATT, *Printing Editor*
ARNOLD I. HAVENS, *Minority Counsel*

SUBCOMMITTEE ON HEALTH AND THE ENVIRONMENT

HENRY A. WAXMAN, California, *Chairman*

JAMES H. SCHEUER, New York

DOUG WALGREN, Pennsylvania

RICHARD C. SHELBY, Alabama

RON WYDEN, Oregon

GERRY SIKORSKI, Minnesota

TIMOTHY E. WIRTH, Colorado

JAMES J. FLORIO, New Jersey

THOMAS A. LUKEN, Ohio

BARBARA A. MIKULSKI, Maryland

MICKEY LELAND, Texas

CARDISS COLLINS, Illinois

BILL RICHARDSON, New Mexico

JIM BATES, California

JOHN D. DINGELL, Michigan

(Ex Officio)

EDWARD R. MADIGAN, Illinois

WILLIAM E. DANNEMEYER, California

BOB WHITTAKER, Kansas

THOMAS J. TAUKE, Iowa

DON RITTER, Pennsylvania

THOMAS J. BLILEY, Jr., Virginia

HOWARD C. NIELSON, Utah

MICHAEL BILIRAKIS, Florida

FRED J. ECKERT, New York

JAMES T. BROYHILL, North Carolina

(Ex Officio)

KAREN NELSON, *Staff Director*

RUTH J. KATZ, *Assistant Counsel*

EDDIE ALLEN, *Associate Minority Counsel*

CONTENTS

Hearing held in Washington, DC, May 23, 1985.....	Page 1
Statement of:	
Bithoney, William, M.D., director, the Growth and Nutrition Clinic, Children's Hospital, Boston, MA.....	25
Christoffel, Katherine K., M.D., assistant professor of pediatrics, and community health and preventive medicine, Northwestern University Medical School, Chicago, IL.....	43
Dietz, William H., Jr., M.D., assistant professor of pediatrics, Tufts University School of Medicine, and director, clinical nutrition, department of pediatrics, New England Medical Center, Boston, MA.....	46
Gilman, Hon. Benjamin A., a Representative in Congress from the State of New York, opening statement of.....	15
Leland, Hon. Mickey, a Representative in Congress from the State of Texas, opening statement of.....	2
Mayer, Jean, Ph.D., president, Tufts University, Medford, MA.....	3
McGhee, Judy, WIC Program participant from New Jersey.....	22
Neason, Betsey-Ann Windsor, certified family nurse practitioner, Medical Center of Taylor County, Grafton, WV.....	32
Pollitt, Ernesto, Ph.D., professor of nutrition and behavioral science, School of Public Health, University of Texas at Houston, Houston, TX...	49
Roukema, Hon. Marge, a Representative in Congress from the State of New Jersey, opening statement of.....	11
Shirley, Aaron, M.D., project director, Jackson-Hinds Comprehensive Health Center, Jackson, MS.....	38
Sikorski, Hon. Gerry, a Representative in Congress from the State of Minnesota, opening statement of.....	3
Waxman, Hon. Henry A., a Representative in Congress from the State of California, opening statement of.....	1
Prepared statements, letters, supplemental material, et cetera:	
Bithoney, William, G., M.D., director, the Growth and Nutrition Clinic, Children's Hospital, Boston, MA:	
Prepared statement of.....	65
Responses to questions submitted by Hon. Mickey Leland.....	27
Christoffel, Katherine K., M.D., M.P.H., assistant professor of pediatrics and community health and preventive medicine, Northwestern University Medical School, Chicago, IL:	
Prepared statement of.....	89
Responses to questions submitted by Hon. Mickey Leland.....	45
Dietz, William H., Jr., M.D., Ph.D., assistant professor of pediatrics, Tufts University School of Medicine and director, clinical nutrition, Department of Pediatrics, New England Medical Center, Boston, MA:	
Prepared statement of.....	91
Responses to questions submitted by Hon. Mickey Leland.....	48
Emerson, Hon. Bill, a Representative in Congress from the State of Missouri, prepared statement of.....	94
Leland, Hon. Mickey, a Representative in Congress from the State of Texas and chairman, Select Committee on Hunger, prepared statement of.....	62
Mayer, Jean, Ph.D, president, Tufts University, Medford, MA.:	
Prepared statement of.....	63
Responses to questions submitted by:	
Hon. Mickey Leland.....	6
Hon. Leon E. Panetta.....	6

VI

Prepared statements, letters, supplemental material, et cetera—Continued	
McGhee, Judy, WIC Program participant from New Jersey:	Page
Prepared statement of	64
Responses to questions submitted by Hon. Mickey Leland	24
Neason, Betsey-Ann Windsor, certified family nurse practitioner, Medical Center of Taylor County, Grafton, WV:	
Prepared statement of	85
Responses to questions submitted by Hon. Mickey Leland	34
Panetta, Hon. Leon E., a Representative in Congress from the State of California, prepared statement of	63
Pollitt, Ernesto, Ph.D., professor of nutrition and behavioral sciences, School of Public Health, University of Texas Health Science Center, Houston, TX, prepared statement of	92
Shirley, Aaron, M.D., chairman, board of trustees, Mississippi Medical and Surgical Association:	
Prepared statement of	86
Responses to questions submitted by Hon. Mickey Leland	41
"The Tyranny of Indifference and the Re-Institutionalization of Hunger, Homelessness and Poor Health: A Study of the Causes and Conditions of the Food Emergencies in 1,506 Households with Children in East Harlem, Brooklyn and the Bronx in 1984," dated May 8, 1985, East Harlem Interfaith Welfare Committee, excerpt entitled	68
Waxman, Hon. Henry A., a Representative in Congress from the State of California and chairman, Subcommittee on Health and the Environment, prepared statement of	61

HEALTH CONSEQUENCES OF HUNGER ON U.S. INFANTS AND CHILDREN

THURSDAY, MAY 23, 1985

HOUSE OF REPRESENTATIVES, SELECT COMMITTEE ON
HUNGER, AND SUBCOMMITTEE ON HEALTH AND THE EN-
VIRONMENT, COMMITTEE ON ENERGY AND COMMERCE,

Washington, DC.

The committees met jointly, pursuant to notice, at 10:15 a.m., in room 2123, Rayburn House Office Building, Hon. Henry A. Waxman presiding.

Members present: Representatives Leland, Daschle, Gejdenson, Sikorski, Dorgan, Kostmayer, Roukema, Morrison, Gilman, and Nielson.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. The meeting will come to order.

This is a joint meeting of the Subcommittee on Health and the Environment with the Select Committee on Hunger, on the health consequences of hunger on U.S. infants and children.

Hunger is something that is not supposed to happen in America. Because we are the richest Nation on Earth, because we are the breadbasket of the world, we expect mothers and children to be adequately nourished. But that is simply not the case.

Hunger and malnutrition are flourishing in some regions of our country and in some parts of our population. Reports of pregnant women who go without vegetables or vitamins and infants and children who go without milk are no longer uncommon.

The health consequences of hunger, particularly for children, can be devastating:

Poor nutrition in pregnant women can result in low birthweight, the No. 1 cause of infant mortality.

Poor nutrition in infants can produce stunted growth and development.

And poor nutrition in children can cause developmental disabilities and infectious disease.

The Reagan administration's solution to this problem is to freeze nutrition and health programs that help care for the hungry. But ask any WIC clinic or public hospital or community health center about their ability to freeze the need for their services. It cannot be done and the Congress should not allow the administration to try.

It is true that hunger should not be happening in America, but it is. And we cannot afford its consequences anymore. As a deficit-

ridden Nation, we cannot afford the medical dollars that are spent to care for those who become sick because of their hunger, and as a just and humane people we cannot afford the lives that are lost or destroyed because of an inadequate food supply.

Hunger in America can be prevented. Today's hearings will show us what happens to our children when it is not.

I would like to call on our cochairman for this morning's hearing, Congressman Mickey Leland who is chairman of the Select Committee on Hunger.

**OPENING STATEMENT OF HON. MICKEY LELAND, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS**

Chairman LELAND. Thank you very much, Mr. Chairman. I would like to add that I am honored to be a member of the Health and Environment Subcommittee which you chair, and I really appreciate the opportunity to participate with you this morning as co-chair of this hearing, particularly as chairman of the Select Committee on Hunger.

I am pleased to be here today where we have come together to receive testimony on the effects of hunger on infant and child health in the United States. Certainly when the latest statistics report that one out of every four children under the age of 6 and one-half of all black children live in poverty it is undeniable that millions of children are indeed vulnerable to hunger.

Even these words, vulnerable to hunger, cannot bring to light the severity of the physical and psychological damage which can result when a child does not have enough food to meet basic nutritional needs. In the 1960's we forged a bipartisan national commitment to guard the nutritional well-being of the children of this Nation. We established policies that attempted to assure every child an equal opportunity to grow, develop, and learn to his or her full potential.

In recent years we have watched this commitment take a back seat. Consequently, national, State, and local studies report that extensive hunger exists in the 1980's, and it is adversely impacting upon the health of our infants and children.

We are hearing that improvements in the national infant mortality rate are slowing down for the first time in 20 years. The rate of low birthweight has not significantly improved for several years. Furthermore, health professionals across the Nation are reporting increased numbers of children with iron deficiency anemia, growth stunting, and failure to thrive.

They also report that children who are mildly malnourished suffer increased susceptibility to infection and are apathetic to their environment. In 1979 the Surgeon General of the United States issued two modest objectives for the Nation. One, by 1990, no county or no racial or ethnic subgroup should have an infant mortality rate in excess of 12 deaths per 1,000 live births. And by 1990, low birthweight babies should constitute no more than 5 percent of all live births.

However, based on projections made by the Department of Health and Human Services neither of these goals will be reached. I believe that we must set national priorities for eliminating all

health consequences of hunger. We must launch a renewed campaign designed to protect our children from the effects of malnutrition and hunger. If we do not begin today, we will pay far more in the future.

We will hear today from health professionals who treat undernourished children, experts who have researched the physical and mental consequences of not getting enough to eat, and a low-income mother who has participated in the WIC Program. I am confident that these witnesses will all offer statements and recommendations which will assist us in alleviating the adverse effects of hunger on infant and child health. I thank you, Mr. Chairman.

Mr. WAXMAN. Thank you very much, Mr. Leland. Mr. Sikorski.

OPENING STATEMENT OF HON. GERRY SIKORSKI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. SIKORSKI. I thank you. I just want to commend both of you chairmen for raising this issue and holding this hearing. I think the need for action is underscored by the front page headlines this morning where we see that now, in America, over 22 percent of our children live in poverty, when just 15 years ago less than 14 percent of our children lived in poverty. I commend you for moving the issue forward and once again concentrating our attention on it.

Mr. WAXMAN. Our first witness in today's hearings is Dr. Jean Mayer, president of Tufts University. Dr. Mayer is among the world's most prominent nutritionists. We are delighted that he is able to join us today, and ask that he come forward.

Dr. Mayer, we are pleased to have you with us. We welcome you to our joint hearing. Your prepared statement will be made part of the record in full and we would like you to spend your time, if you would, to summarize it in around 5 minutes, if that is possible, so that we can have a full opportunity for questions and answers.

[The prepared statements of Mr. Waxman and Mr. Leland appear at the conclusion of the hearing, see p. 61 and p. 62.]

STATEMENT OF JEAN MAYER, PH.D., PRESIDENT, TUFTS UNIVERSITY, MEDFORD, MA

Mr. MAYER. Mr. Chairman, it is an honor to appear before your committee, but I do so with melancholy. I was the first witness before the Select Committee on Hunger, Malnutrition, the so-called McGovern committee, in 1969. And I was chairman of the White House Conference on Food, Nutrition, and Health which put together 1,800 recommendations and the machinery to carry them through, and I think that there is good evidence that by 1978 we had really succeeded in essentially eradicating hunger and malnutrition in the United States. And the fact that we are backsliding to the extent that we are gives one the feeling that part of one's life has not been as productive as one would like it to be.

My role this morning is to quickly give an historical introduction for my younger colleagues who are still in the process of taking care of malnourished people. As a university president I have to be confined to matters of policy and history rather than active participation.

Let me remind us all of where we come from. In the thirties the situation in the United States, and particularly in the South, was not unlike what we associate now with developing countries. A survey in Baltimore in the early thirties showed that 30 percent of the children had rickets. In that period about 10,000 deaths a year in the United States were due to pellagra and several hundreds of thousands of mild cases were seen. Goiter was very prevalent in many areas in the United States.

As a result of the Depression, a Commodity Distribution Program, the oldest large food program, was begun in 1935, clearly, first of all, to dispose of farm surpluses. The USDA used the authority in the legislation to distribute food for the poor and the Commodity Distribution Program for the poor was relegislated in 1949 in section 416 of the 1949 Agricultural Act.

During the intervening period, during World War II, a number of things had happened, such as enrichment of cereals, beginning of iodization of salt, incorporation of vitamin D in milk, and as a result some of the most glaring vitamin deficiencies had disappeared. The commodity program did help but was very unwieldy. It was usually limited to four to five foods. Payments had to be made on the first of each month. The transportation of food was a problem for most of the recipients. The conduct of programs was different in different States, and the program as a result had very limited participation.

As a result of the criticism of the program a Food Stamp Program was begun by the USDA in 1961 as a method of giving people a chance to choose their own foods. The Food Stamp Act, passed in 1964, tied eligibility to the U.S. poverty level, based the purchase cost on the family's net income, and based allotments per family on the USDA's Thrifty Food Plan. The program was expensive for the poor. They had to come up with the money the first of each month. It was not widespread, and by 1969 a very small number of people really were benefiting by it, no more than something of the order of a quarter of a million.

Meanwhile, the School Lunch Program had begun in 1945 as a result of the observation during World War II that half of the prospective draftees were rejected because of disabilities related to childhood malnutrition or lack of teeth.

I may add, and I think in the Congress, which sometimes seems almost exclusively preoccupied with military preparedness, that it is worth noting that a very large number, if not the majority of the recruits to the Armed Forces in the United States by the year 2000 will have been children who will at one point or another have been the beneficiaries, we hope, of the Food Stamp Program and other programs.

Clearly, cutting down on those programs at this point is unlikely to improve either their physique or their patriotism.

The school breakfast was begun in 1966. Its original target was low-income children. It again, had very little currency by 1969, by the time the White House Conference started. The WIC Program, the Congregate Feeding Program for the Elderly, the Meals on Wheels were later programs which were offshoots of the 1969 conference.

In terms of public opinion, I think after the interest in malnutrition related to World War II and in particular the poor performance of young Americans in terms of passing the draft requirements, the country assumed that all Americans were well fed and this sort of general passivity lasted until the 1960's when the Southern Christian Leadership Conference started raising again the issue of malnutrition.

A number of us set up a Citizens Board of Inquiry into Hunger and Malnutrition in the United States, and were supported in this respect by the Field Foundation. We developed teams which were sent around the Nation, looked at every ethnic and age group in every area, and the results of this survey, which showed that malnutrition was extremely widespread among whites, among blacks, among Hispanics, among Indians, among Eskimos and Aleuts, in Puerto Rico, and in Samoa, et cetera, were popularized by a CBS report on hunger in America which was shown twice, two Sundays in a row, and which had enormous impact on the American public.

Meanwhile, some of us who were interested in doing something created the National Council on Hunger and Malnutrition, of which as a matter of fact I served as chairman, and which, if you added the members of all organizations participating in it, had 65 million members. One of the questions that some of us are asking ourselves now is whether we should revive a very large-scale organization of that sort to create the pressure necessary to prevent hunger from reappearing.

The Senate created the Select Committee on Nutrition and Human Needs, which had its first meeting in 1969 and at which I appeared, and the President of the United States, Mr. Nixon, called me to talk to me about the problem; was suitably impressed with the fact that the citizens, that the National Council on Hunger and Malnutrition had 65 million members, and decided to create the White House Conference on Food, Nutrition, and Health, which met in 1969 and which I organized and chaired.

The conference had 3,600 participants. We tried to represent every interest group involved, and particularly large women's organizations, which were particularly active in the hunger movement. We came out with, as I said, 1,800 recommendations. There was very clear bipartisan implementation of recommendations.

I have always felt that the reason the hunger questions did not figure more in the 1972 election was that the two people who were most active, really, in eliminating hunger in America; namely, Senator McGovern and President Nixon, were running against each other so that it was a nonissue politically even though it was a very large issue socially.

We expanded the Food Stamp Program from 250,000 recipients to 16 or 17 million. The commodity program, which had been very unpopular, was phased out everywhere except in Puerto Rico. The School Lunch Program went from 2 million recipients before the Conference to 26 million in 1978, including 12 million of the poor. The School Breakfast went from 300,000 recipients in 1968 to 3 million in 1978.

The Food Stamp Program worked as it was supposed to work, as seen by the rise and fall of food stamp participation with changes in the unemployment rate. For instance, in 1976, with 8 percent

unemployment. 18 million people were recipients. By 1978, when 6.2 million people were unemployed, the participation had fallen to 15.3 million. The idea that it was not administered properly, that it didn't follow the rise and fall of the national income, particularly for the poor, is a myth. This is probably one of the best administered programs we have ever had.

The Food Stamp Act was further amended in 1977, as you know, with the elimination of purchase requirement, and in 1979 and 1980 with liberalized deductions for elderly, and the students being phased out. As the economic situation deteriorated the number of recipients went up again and reached 22 million in 1980. There were a number of further changes in 1981 and 1982 in terms of allowable deductions for gross income, in terms of delayed cost-of-living adjustments, and so on. The program, I think, functioned well enough that it had to be considered and still has to be considered as the first line of defense against malnutrition of children.

There is a great deal of emotion attached to the School Lunch Program. I am certainly a friend of the School Lunch Program, but it is far, far less important for the nutrition of American children than the Food Stamp Program. The School Lunch Program at best feeds children one meal out of three 1 day out of 2. That's one meal out of six in the course of the year. The Food Stamp Program, 50 percent of the recipients of which are children, feeds them day in and day out.

The WIC Program went up fairly rapidly in terms of participation from 206,000 participants in 1974 to 1.5 million in 1978. Nevertheless, by 1980, of the 8.7 million people eligible in the United States for the WIC Program, only 20.3 percent were being served.

This is a very effective program. We have a number of studies which show clearly that every dollar spent on the WIC Program saves \$3 the same year in medical programs, as our chairman pointed out. This is solely in terms of costs of care of premature children. This is not counting the fact that premature children are more likely to be retarded and the lifetime costs of the care of the retarded person in Massachusetts at this point is close to \$3 million. Of all the stupid ways of saving money, not feeding pregnant women is probably the most stupid, the second most stupid being not feeding children.

Mr. WAXMAN. Dr. Mayer, let me ask you this. We will have the rest of the statement in the record.

RESPONSES TO QUESTIONS FOR JEAN MAYER

QUESTION SUBMITTED BY HON. MICKEY LELAND

Question. You discuss a regression in Federal support for Domestic Food Assistance Programs. In your estimation, how much additional funding in Federal aid programs is needed to halt reemerging hunger and malnutrition?

Answer. For food stamps and the School Lunch Program, an increase of between 30 and 50 percent. For WIC, to cover all of the eligible women and children we will need to about triple the funding. The School Breakfast Program funding should be doubled.

QUESTION SUBMITTED BY HON. LEON E. PANETTA

Question. Are current nutrition monitoring systems sufficient to give us early indications of infant and child nutrition related health problems? If not, what changes would you suggest?

Answer. As they have been, our nutrition monitoring systems were most inadequate. The USDA Food Consumption Survey was done only every 10 years or so, the data from the last HANES survey are still being released. However, it is my understanding that the USDA is beginning smaller, but continuous surveys of food intake, concentrating upon children up to 5 years of age and on women in the child-bearing years, and doing both an all-income and a low-income sample. I also understand that these data will be available to HHS, and that HHS can use the USDA data base. HHS itself, I believe, is still firming up its planning for the next HANES, and USDA will begin its next national food consumption survey in a year or so. If these two surveys are in fact closely linked, and if they are in turn coupled with surveillance in the obstetrics and pediatric departments of hospitals, we should have a sound basis for detecting indications of early nutrition-related health problems in infants and young children.

[The prepared statement of Mr. Mayer appears at the conclusion of the hearing, see p. 63.]

Mr. WAXMAN. I do want us to get on because we have to hear from other witnesses and we will be interrupted with votes throughout the day.

To what extent do you attribute the backsliding we have seen of—the growth in hunger—to cutbacks in these Federal programs?

Mr. MAYER. Mr. Chairman, I was going to say, in 1978 the Field Foundation resurveyed the counties and the populations that had been surveyed in 1968 with the same physicians and the same nutritionists, very largely, and found that hunger and malnutrition had been essentially eliminated, even in areas like Appalachia where there had been no economic change. So that we have to conclude that the food programs had made the difference.

Now, since 1980 we have had severe cuts, savage cuts, really, in the Food Stamp Program, cuts in eligibility for School Lunch Program, no increase in participation and decrease in actual value in the WIC Program. I have no doubt that this backsliding which I look at as representing perhaps one-third of the advances that we had achieved since 1968, is due to the cut in the food programs.

Now, why the cuts have taken place? It is probably because the children and the poor are very much less effective in their advocacy before this body than the farmers, the defense industry, and, in fact, everybody else in the country.

Mr. WAXMAN. Yet, President Reagan seems to believe, because he says it over and over again whenever he is confronted with this issue, that there is a safety net that will hold up the poor and that we're not going to allow the kind of poverty we once saw in this country to return. And so, even though his administration has proposed cuts in Medicaid, WIC, food stamps, and all these programs that are aimed at keeping people from falling to the depths of poverty and hunger, he seems to think that nothing has changed, that somehow the needs are still met. Do you believe he is wrong?

Mr. MAYER. Mr. Chairman, I think Mr. Reagan is full of good intentions and believes that wishing will make it so, and that he, and particularly his associates, seem to be totally unencumbered by facts, when it comes to evaluation of what in fact is taking place.

Mr. WAXMAN. It is ironic that today—we did not plan it this way—but today the House is voting on the budget. The Senate voted on the budget last week. Both budgets are premised on the idea that we ought to just freeze spending and that way we can deal with the deficit.

I have resented the idea of freezing spending because it has always seemed to me a copout for Members of Congress to avoid making the tough decisions as to what programs are cost effective, which are needed and which we cannot afford.

To put everything at a freeze level and say this is the status quo which seems to be meeting all the needs, and that freezing funds will continue to meet the needs, is, I think, obviously incorrect. Ironically enough, we are freezing Government expenditures for programs for nutrition for children and pregnant women, but we don't freeze the tax subsidy for businessmen to go out and buy lunches and dinners at some of the most expensive restaurants. We don't propose freezing that loophole, we allow that to continue to increase.

But the point I want to ask of you is, if we are going to make serious decisions, we ought to look at the cost effectiveness of the expenditures of dollars for these programs. If we can't justify it in terms of the need, and we can't justify it in terms of cost effectiveness, then it seems to me that we have an argument to look at making cuts. Can you tell us in your evaluation of these various programs, have there been studies done to show whether they are, in fact, cost effective or not?

Mr. MAYER. One of them I cited already. There have been several studies on the WIC Program showing, as I said, that about \$1 spent on the WIC Program which, as you remember, predicates the giving of food on having prenatal care as well, saves about \$3 the same year in medical care costs. And you can see how this should be so. The cost of taking care of a premature baby in a hospital at this point is about \$1,000 a day.

Clearly, by and large, young mothers who do not receive WIC help have a considerably higher proportion of premature children than the women who do, and the expense, the increased expense is immediate—it takes place within 9 months—without even counting the long-term consequences of the fact that premature children are much more likely to be retarded and have other problems.

I attribute this idiotic situation to the fact that we have no coordination in the budgetary process between various departments. The Office of Management and Budget ought to do it, but doesn't do it. So that if the Department of Agriculture is told to cut down on their programs, and, say it cuts down on the WIC Program, the fact that it immediately increases the expenditures in the health area and for the States does not count in the overall planning of the national budget. So even forgetting the obvious humane consequences of not feeding pregnant women, there is no way, in the way in which the budget is developed whereby somebody can point out and act on the fact that cutting down on the expenditure in this particular part of the budget may swell up the expenditure on the other part of the budget.

The liaison between departments is miserable, and as far as I can see, the OMB sees itself as a policeman trying to push down the expenditures in each department but does not do the job of coordination which can only be done either at the White House level or, more likely, at the OMB level.

Mr. WAXMAN. Well, if they did not want to do it for humane reasons, you would think they would do it for fiscal economic reasons,

and they do not seem to be moved by that either. It is really incredible, the shortsightedness in some of this decisionmaking.

Just before I move on to the others, I just want to make one comment. You pointed out an argument in terms of the national defense, that some of these poor children are going to be fighting when they get a little older, because they are the ones who often make up the Armed Forces of this Nation. OK, now that we have a voluntary Armed Forces. And you said we would be better off as a society for military reasons to feed them and allow them to be strong and healthy and clear-minded so they can work the computers to blow up other places and fight hand to hand if necessary.

I think that that statement makes an interesting comment as to what we think our needs are and our national security interests are. I'd hate to—well, it's tempting to look and say the defense budget ought to expand to cover all these needs that are being ignored on the domestic side. I would worry if we talked too loudly about the military part of this. The administration would say that perhaps we ought to give food to the hungry children only on condition that we make sure these kids are going to be in the Army. I say that rhetorically, and with some bitterness. Mr. Leland.

Mr. MAYER. Mr. Chairman, let us face it. The School Lunch Program was started directly as a result of people being struck by the fact that 50 percent of the draftees were rejected for physical reasons during World War II. So it is not unreasonable to bring in, historically, at any rate, the—

Mr. WAXMAN. That should tell us that we have a problem and that as a humane and just society we should be solving that problem even if we don't have to call on these children later to be in the military. Thank you, Mr. Leland. I know you share that view.

Chairman LELAND. Thank you, Mr. Chairman. Dr. Mayer, I think I can presume the answer to your question, but I have been particularly concerned about infant mortality. In my city of Houston—and I keep saying this, and I've said this, by the way, since I have been in Congress—it is rather ironic that Houston at one period in time enjoyed one of the greatest booms in modern times in terms of its economy, and we saw huge monuments as a result of the wealth of Houston growing. We saw these high buildings demonstrating the great wealth of Houston. Yet, at the same time, in the shadows of those buildings that were being built, existed some of the most abject poverty depicting some of the most adverse circumstances of life that could exist, in my district. In the black community of Houston, like elsewhere in this country, the infant mortality rate is twice as high as it is in the white community.

At one point we saw the decline of the infant mortality rate in Houston. In the last few years we have seen evidence that there is an incline in infant mortality. We now have about 250,000 people who are reportedly malnourished and hungry in Houston, and largely in my district.

I am concerned about what's going on in this Nation. In the last 5 or 6 years, we saw a rapid decline of the infant mortality rate. And now we see a slowing down of that decline. In the black community, the infant mortality rate has slowed down to the extent that we are worried that it is going to start rising nationwide. To

what do you attribute the leveling off, and in my district to the current inclination of the infant mortality rate?

Mr. MAYER. Congressman, 2 or 3 years ago, much was made in our press of the fact that the life expectancy in the Soviet Union had stopped going up and that in fact it was beginning to go down, and it was pointed out that the level of the arms race they were sustaining could not, was not compatible with continued progress in the Soviet Union. I think we are beginning to see the same thing in the United States. I think that because we have a much larger industrial base than the Soviet Union we live under the delusion that in the arms race they will go broke before us. I think we are both going broke at this point. I think that children are beginning in both countries to live in the rubble of World War III, and I think that what we see is the result of increased malnutrition, the elimination of money for preventive immunization programs, and I think that the steady improvement in the health statistics which has been justifiably the pride of our country for the past 100 years, has now leveled off and is beginning to cave in. And if there is anything that should make us reassess our priorities, I think this is one of them.

Chairman LELAND. Doctor, I have had some experience with Cuba and, while I know that this analogy may be unusual, I think it is rather relevant. My experience with Cuba has been in dealing with the health care delivery system, the primary health care delivery system in particular. I have talked with Government officials, officials responsible for health, as well as President Castro himself, about why they place such a high priority on their health care delivery system. Certainly, with as little as they have, they have done well.

They have explained to me over and over again that the highest priority they have is to raise healthy children. The fact of the matter is that they have determined that their highest priority and their first dollars that they have available will go to rearing healthy children.

I raised that analogy because I feel that we ought to have the same priorities. Don't you think that's where our priority should lay?

Mr. MAYER. Congressman, fortunately we have other and perhaps better models in terms of what we ought to be doing than Cuba. The drop in infant mortality is continuing throughout the developed world. Countries like Singapore, countries like Sweden and Norway do extraordinarily well. And I think we should be doing very much better.

This is not, at this point this is something that people do not like to hear, but our country at this point does not put a high price on children. The programs for children are the victims of a great many of the budgetary cuts both at the Federal level and the State level. In my own State, proposition 2½, which limited the local taxation, was done entirely on the backs of the children. We did not cut down on the State bureaucracy, we did not cut down on police protection, we did not cut down on our fire department; we cut down on the budgets for the schools.

As you look at what—budgets, when all is said and done, are better indications of national or State priorities than any speech

that can be made. And when you look at where the cuts are, they are right now, cuts in education, cuts in health, cuts in child nutrition. The children are really getting the brunt of the economy done by Congress, not the defense contractors.

Mr. WAXMAN. Thank you very much, Mr. Leland. It is my pleasure now to recognize the ranking minority member of the Select Committee on Hunger, Mrs. Roukema.

OPENING STATEMENT OF HON. MARGE ROUKEMA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mrs. ROUKEMA. Dr. Mayer, it is my privilege to welcome you here today and I will not go into the reasons why I was late in arriving, but my apologies.

I was pleased to recommend that you appear before this panel. I have been a longtime admirer of yours, and certainly am familiar with the work that you did under the Nixon administration. And so we are most honored to have you here today.

Your appearance before us coincides with some rather alarming news that perhaps was alluded to or referred to prior to my arrival, and that is the report in today's newspapers regarding the alarming increase in the number and percentage of children who are falling below the poverty level. That is, of course of great concern to me and I can tell by the summary of your remarks that this is also your concern.

I have two questions, Dr. Mayer, in consideration of our limitation of time.

One, I am very distressed by these figures, and I do not quite know what to do about it, besides add more money to the budget. I do not want to in any way signify that I do not think that more money may be needed in certain key areas. That is not the purpose of my question. But, to some extent, these statistics are symptoms of far more fundamental problems in our society, and it is distressing for me to look at some of the socioeconomic problems that underlie these statistics.

Could you help us through your experience as a nutritionist and an outstanding, preeminent educator? Would you comment how we may address the underlying socioeconomic problems?

Mr. MAYER. Madam Congressman, in some ways I have been guilty of oversimplification when I talked about backsliding. Clearly, in terms of what is happening now, clearly there is a backsliding in the food programs as compared to the enormous effort that was done during the Nixon-Ford administrations under very bipartisan sponsorship, really a national goal and a national effort.

But in fact, as you point out, this also hides sociological transformations. In the 1960's, when we looked at hunger and malnutrition in the United States, clearly the elderly were the largest group of the very poor. You went into northern Maine or into the Michigan peninsula, or Appalachia or big cities, and you found a lot of older Americans not covered by Social Security, or covered only very partially by Social Security, too proud to do what they considered begging, and starving quietly.

The big bloc of the poor now are women-headed families, families headed by single women with small children. The elderly are pro-

portionately quite a bit better off than they were in the 1960's. That does not mean that they are all well off or anything of that sort, but there has clearly been a shift in who is poor in America.

The statistics we have, as you know, are something like one white child out of four or five in the poverty group; one child out of two in the group, among black Americans; and something like one out of three among Hispanics. And the situation is getting worse.

Senator Moynihan in a recent lecture said that something like one child out of three is going to be sinking under the poverty level before the year 2000 which, incidentally, shows how important it is to have programs like the Food Stamps and the School Lunch Program work because a very large part of the Nation is going to be in them.

Now, what we could do about it is not easy. It clearly has to do a great deal with the decay of family, the decay of sexual morality, the lack of followup from one State to another. I know the Association of Attorney Generals is trying to get some sort of agreement whereby they can follow delinquent fathers.

We have had enormous advantages in having a Federal form of government in the past 200 years, but at this point the welfare of a lot of children is not one of those advantages. The difficulty in following up the obligations of fathers if they skip across State barriers is a very serious problem.

One almost feels that we have reached a point where we should try to educate people to have a vasectomy if they abandon their wife and family. If they have found some greener pastures, fine. But if it appears that they are going to start a second family that they clearly cannot afford, then we have a very enormous social problem, and at this point I don't know how we can cope with the fact that one-third of the children of the United States are going to be public responsibilities because fathers have absconded.

Mrs. ROUKEMA. You happen to be speaking to one of the people who originated the child support legislation that I am very proud passed in the Congress and was signed by the President last year. We are hopeful that this reform legislation that requires nationwide reciprocity is going to be honored and be helpful in this regard. But I think we have to go far beyond that.

Mr. Chairman, may I have one more moment or so?

Mr. WAXMAN. One more moment.

Mrs. ROUKEMA. I know that time is going, but I am concerned, and I hope perhaps you would be able to write to the committee for our record any thoughts that you may have on this subject. The Harvard Public Health School report on hunger in America has become bitterly divisive along political lines, Dr. Mayer, and I would share with you the hope that the welfare of children—as part, of the hunger and nutritional problems of this country—be exempted from partisanship and become bipartisan again.

I am reaching out in some way, perhaps to the Congressional Research Service, perhaps some other authoritative group, to ask them to do a dependable study, the methodology of which would not be in question, which would dispassionately and objectively examine all aspects of this question, particularly as it relates to children. I would appreciate any advice that you might have for me in

this regard. If we do not have time now to discuss it, I would appreciate a written report.

Mr. MAYER. Let me just——

Mr. WAXMAN. Dr. Mayer, we're going to keep the record open so if you do want to respond to that we will——

Mr. MAYER. Just one paragraph?

Mr. WAXMAN. Certainly.

Mr. MAYER. The question is not entirely new, in that when the field report on hunger and malnutrition in the United States came out in 1968 or 1969, a lot of people doubted it. A 10-State survey which was undertaken by the U.S. Public Health Service and confirmed the hunger report was in part actuated by the same reasons. One wanted a sort of more objective, or seemingly more objective official documentation——

Mrs. ROUKEMA. Is the Public Health——

Mr. MAYER [continuing]. Of the report, I think the Center for Disease Control is perfectly capable of independent confirmation of something like that hunger report.

Mrs. ROUKEMA. Thank you very much. I will await your comments.

Mr. WAXMAN. Mr. Gejdenson.

Mr. GEJDENSON. Thank you, Mr. Chairman.

What happened to the rising tide raises all ships that we heard about? The economy is booming, things for much of America seem to be improving. What is happening to these children? 22 percent, in 1985, in the richest country in the world.

Mr. MAYER. What has happened to the children is the familization of poverty, very largely. The rising tide raises all the ships that are working for the defense industry and all the enormous number of subcontractors and people benefiting from it, but if you are a young woman with no really national day care center organization in this country, you have to take care of small children, you have not been trained, you are taking whatever job you can. You either don't make any money by the time you have paid all your expenses, or if you do have extra you still get paid a fraction of what a man would get paid. And if the women increasingly are the ones who are responsible for the children, then the differential in pay between men and women becomes more tragic than otherwise.

We have, I think, all agreed to the spirit of ERA even though, unfortunately, it has not been passed yet, but we have not drawn the social consequences of what it means to have women in the labor force, to have women be independent wage earners, and to have them be stuck with the children at the same time. It's not enough to say that every woman can be a neurosurgeon now if in fact the woman is a lowly paid secretary and has to take care of the day care centers for children while her husband is somewhere else. You are going to have very poor children.

Mr. GEJDENSON. What happened? I think all of us here on the committee want to be bipartisan and we go to great efforts not to make this a partisan matter. But I think that we would be deceiving ourselves if we did not focus on what this Congress did in 1981, on the impact of the cuts in the social programs and the population funds. Where do we stand today? How much damage have we done and what do we need to do if we are to undo the damage done?

Mr. MAYER. First of all, let me say that clearly the bipartisan-ship that existed in the early 1970's does not exist at this point, and clearly the way in which Presidents Nixon or Ford could work with the Congress on social programs does not exist at this point. It is very clear that that has been broken.

On top of it, it seems to me that what I said earlier about the lack of an overall planning intelligence, if you want, to look at the consequences of what happens in various parts of the budget, it is lacking. We spent over \$20 billion last year on the PIK Program to cut down agricultural production, while at the same time cutting down the food programs for the poor, while being very niggardly about relief programs elsewhere, when, you know, the best way to dispose of food is to have it be eaten. And we are going to spend the sort of money we are spending to dispose of the food, why not spend it in such a way that it does somebody some good.

As of now we have managed to have a farming population which is totally disaffected from the rest of the Nation, increasing hunger in America, and relief abroad that does not work well. My point is that even technically we are not behaving competently.

Mr. GEJDENSON. Let me say this, before my time runs out: Often the programs of the past, the New Society programs that have been implemented are offhandedly dismissed as having failed to solve the problem. I think one of the things that needs to be focused on is, had we not engaged in the Johnson programs and the programs that Nixon and Ford put into place how much worse off we would be today. The fact that those programs were here and served America made a substantial difference in many Americans' lives, and that in reality we started many of the educational programs only 20, 25 years ago, that it is the first generation out that we were reaching, and that we are now abandoning those same areas.

If you could address that for a second——

Mr. MAYER. Let me speak as a university president rather than as a nutritionist. I cannot think of anything more destructive to the fabric of the Nation than the constant reiteration that programs which we do as a nation do not work. It is a recipe for national impotence.

The fact is, we dug the Panama Canal, we put a man on the Moon, and we had very largely eliminated hunger and malnutrition from America.

Some of the programs we have done nationally have not worked, but a lot of programs we have done nationally do work, and I think it is as important to study the ones that have worked as the ones that have not worked, try to find out how they worked, instead of having a sort of general view that anything the Federal Government does is subject to fail. If that's the case——

Mr. GEJDENSON. Thank you.

Mr. MAYER [continuing]. We might as well turn the country back to the Indians.

Mr. GEJDENSON. I guess even some of the private sector programs fail, as the people who bank in Ohio and Maryland now know. Thank you.

Mr. WAXMAN. Mr. Gilman.

OPENING STATEMENT OF HON. BENJAMIN A. GILMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. GILMAN. Thank you, Mr. Chairman. I want to take the opportunity of welcoming President Mayer before our committee, a distinguished expert on hunger problems and a gentleman I had the pleasure of serving with on the President's Commission on World Hunger when he served as Vice Chairman of that Commission, and also formerly the Chairman of the President's Commission on Nutrition. We certainly could not get a better expert to come before our committee than President Mayer.

I am very much interested in your testimony today, and I regret that I was a bit delayed in getting here. However, I looked over your formal testimony.

If we were to try to pinpoint some of the most critical things that this committee could do to help alleviate domestic hunger and international hunger, what would you pinpoint as some of the more important proposals that you personally would like to see adopted?

Mr. MAYER. Well, let me first say that I think the country would save money if you would increase the scope of the WIC Program, because the costliest way of administering the food programs is not to feed properly pregnant women and not to have adequate prenatal care. It is very, very expensive even in terms of sheer money.

The second is that I think that I have a problem of terminology. There are certain programs which we call child nutrition programs, like the School Lunch Program, and which become sacred cows because of course we want to feed the children. But we must remember that the single, by far most important factor in feeding children is the Food Stamp Program. That is the program that feeds the children day in, day out, morning and night, vacations, Sundays, and so on, while the School Lunch Program is one meal out of six.

The other point which I think is worth making in terms of our priorities is, compare the amount of money spent per meal for the Armed Forces, for the Federal prisons, and for the schoolchildren. And I will not be insolent and talk about subsidies of meals in the Halls of Congress, for instance, or tax credits for businessmen eating out. But it is quite clear that we give the children a very small fraction of the amount of money per meal that we will attribute to a meeting of the National Guard or to the Federal Armed Forces, or to the Federal prisons. And what does it tell us from the point of view of our priorities?

The last point I would make is really a plea to try to put some things together instead of looking at them separately. The support of farm prices, the erosion of the soil of the United States, and the food programs are not independent variables which have to be looked at in entirely different sections of the budget with no one ever putting anything together.

The PIK Program, for instance, retired a lot of soil from cultivation with no attention as to what ought to be retired from cultivation to save our land. And at the same time we acted as though cutting down on the food programs but increasing the subsidies to farmers were two totally independent variables. And clearly at this

point, if the OMB doesn't do that type of calculation the Congress ought to be doing it.

Mr. GILMAN. Thank you for those thoughts. And just to stray a moment from our principal topic today, any thoughts about our international programs on hunger, since we have the benefit of your expertise—

Mr. MAYER. We have there too an organizational problem. I think we can be proud of the fact that since World War II our country has been the main bulwark of the world against starvation. I can think of only one time, which is Biafra, where for political reasons we did not do anything until the war was over at the cost of perhaps a million lives. But everywhere else we have tried to do the right thing, but we always tend to do it late. We don't have installed an effective early warning system so that we can intervene in famines early before everybody has started taking to the roads, drinking ditch water and getting gastroenteritis, losing small children, having the adolescents form gangs which engaged in attacking the food convoys. There is there, too, a sort of uninformed good will which is not the way, after 40 years of that sort of experience, a great nation should behave.

My melancholy conclusion is that a great many things that we see as lack of good will are too often lack of competence.

Mr. GILMAN. Thank you. I see my time is expired. Thank you, Mr. Chairman. Thank you, Mr. Mayer.

Mr. WAXMAN. Mr. Morrison, did you have—

Mr. MORRISON. Mr. Chairman, one of the responses to Mr. Gilman that brought a question to my mind, if you do not mind backtracking—

Mr. WAXMAN. Let me recognize the gentleman, Mr. Dorgan, and ask him if he would yield to you.

Mr. DORGAN. I'll be happy to yield.

Mr. MORRISON. Thank you. It will just take a moment.

Dr. Mayer, in looking at the figures on the WIC Program I find that we have doubled our expenditure from 1980 to 1984, and yet, in response to Mr. Gilman, you indicated that you would increase the scope of WIC, and I presume in your response you are saying, not just the financial contribution which has doubled in these last 4 years, that you would expand it as far as the number of people covered. Is that accurate?

Mr. MAYER. We have as you well know an enormous number of pregnant teenagers married or unmarried; many of them unmarried, who are in the situation physiologically of being still growing themselves and yet having children. We need to have a very—well, under psychological conditions, very often, when they are pregnant, which are difficult, we need to have a very systematic outreach to make sure that everybody is reached, taken care of medically, get food, and produce healthy children.

Whatever the moral merits—and there are some arguments on both sides of the abortion question—the fact of the matter is that we don't seem to give a damn about the people who do not abort and are pregnant, and ought to be fed and followed in terms of prenatal care. And I think that it is very expensive for the Nation even in terms of immediate expenditures not to try to reach a

much higher proportion of those young people than we do. We reach about 20 percent of them at this point.

Mr. MORRISON. Would you care to venture an opinion on something that at least the Hunger Committee and the Agriculture Committee has wrestled with, and that is, under the WIC Program, of course, we have distributed commodities, sort of a shift away from the direction that Congress has taken in the last several years by shifting to the Food Stamp Program. Do you feel that we are better off in dealing with expectant mothers by distributing commodities or through the cash programs such as food stamps?

Mr. MAYER. I am very much in favor of food stamps. I am in favor of food stamps for sort of national reasons. I do not think we want to run commissaries for certain categories of our citizens. I think in a sense the supermarket is the communion table of all Americans and I think we are much better off having everybody shop in the same markets with, however, good nutrition education for the pregnant women. I think one of the important things about the WIC Program is that it makes the distribution of a benefit contingent on their being seen by an obstetrician, and I think it is the combination that we want.

Mr. MORRISON. I thank you. I thank the gentleman for yielding some time to me.

Mr. MAYER. Excuse me. Let me say one thing. The distribution of formula for the babies is a commodity aspect which can be preserved. That is different from feeding the mother. Even that, I would just as soon have them have to buy it at the local store and use our normal distribution channels.

Mr. MORRISON. I guess our concern, Dr. Mayer, is to make sure that that is what they buy. I thank the gentleman for yielding his time.

Chairman LELAND. Mr. Dorgan.

Mr. DORGAN. Mr. Mayer—I am glad to do that—of course, the WIC Program is precisely targeted with commodities and that is exactly how it works and it is why it is such an effective program. I am also interested in hearing you discuss what you perceive to be the success of the Food Stamp Program. There are far too many people who have a tendency to believe that virtually everything we have done has been a failure. In fact, much of what we have done in attempting to help people in this country to overcome hunger and poverty has been enormously successful. In the absence of having done it, this country would be much the poorer for it.

So, I would like to ask a couple of questions.

Mr. MAYER. Could I—

Mr. DORGAN. Well, we have a limited time and I'll be glad to give you a chance to explain but let me ask you a couple of my questions first.

It seems to me we tiptoe a lot because of the politics that circle this town, we tiptoe a lot about what is going on. You said it very succinctly. If 100 years from now people look back at us today, they could probably best tell something about us, what our value systems were, what we cared about, what we thought was important, by analyzing what we spent our money for in the public sector.

It seems to me that we are tiptoeing around all this because we have at this point, coming from the White House, a fellow who is a

President, a good President, but who deeply believes, based on his statements, that he has not affected the safety net, that he has not affected programs of the poor. In fact he has said he has not cut programs for the poor. And yet if, 100 years from now, people look back at what we have done in this half a decade, they will conclude one very important thing, and that is that this group of people, this White House, this Congress, decided that they wanted to shove enormous amounts of money into the military pipeline. In fact we are shoving it in there so fast that the horror stories coming from the waste of that money is enough to gag the strongest supporters of defense spending in this country.

And at the same time, when you do that coupled with decreases in the revenue base, you have no other alternative but to squeeze the remainder of that budget, and that is precisely what has happened to that portion of the budget that goes to deal with the poorest of the poor in this country. Can you comment on that?

Mr. MAYER. I think I am perhaps even more severe on the Congress and the administration than you are. Speaking as somebody who spent 5 years of his life as a unit commander in World War II, I am struck by the fact that we are spending money on the military for everything except training and ammunition. Which makes me think that there is not really a thought that the country is threatened. Otherwise, that is clearly where the priorities would be put now.

All the money goes for things, weapon systems some of which many people think were obsolete 10 years ago, some of which have probably a very short life expectancy in terms of usefulness. But they don't go for people. And I think that when you look at the overall budget, including the military budget, it is a thing budget and not a people budget.

As far as the food stamps are concerned, I have been, you know, having a sort of, some sort of paternity obligations vis-a-vis the food program. I have looked very carefully at the allegations of frauds.

It seems to me that the frauds reported on the Food Stamp Program come really in two main categories. People who had borderline qualifications, who probably should have been off the Food Stamp Program because their income went up a little bit. And frankly, even as a taxpayer, I do not care if this happens or not because those people probably need help. And then organized crime printing fake food stamps, which is part of the overall problem of our fight against organized crime. I would wager to say that fraud on food stamps is a very tiny fraction of the fraud on the income tax.

Mr. DORGAN. Mr. Mayer, then, let me focus on two things. The chairman asked them in slightly different ways. The President has insisted on a number of occasions that the programs that deal with the poor have not been cut. Is that accurate or inaccurate, in your judgment?

Mr. MAYER. No, it is inaccurate. The programs have been cut in absolute amounts and even more so if you take the fact that they did not fully follow inflation anyway. My very rough estimate is that we—the backsliding, we are certainly not back where we were in 1968 or 1969. We are much better off. But I think we have probably slid back something between a quarter and a third.

Mr. DORGAN. Might I just ask one brief question? Assuming you were an adviser to the President, likely or as unlikely as that might be to this President, what would you suggest to him at this point that we do in response to the kinds of things we see in the front page of the Post, the increase in the needs of people in this country that are going hungry. What would you suggest we do at this point? What would you advise the President?

Mr. MAYER. Well, I think I have mentioned it already. One of the things that really bothers me is that looking at national problems in isolation instead of looking at a systems approach, we could certainly—clearly, the problem of supporting the farmers and the problem of feeding Americans better are problems which ought to be looked at in conjunction rather than separately. And as a matter of fact I mentioned the fact that the problem of conservation and soil erosion, which is a very serious problem for the future, ought to also be looked at as part of that same systems approach. Also, I think of, because of my background in health, I have a much clearer view of the fact that it is very costly not to feed pregnant women and children well, and that the cost comes almost immediately in other parts of the budget so that even if we stay on the purely economic side—and this is not what this country is all about—a lot of the things we do are stupid.

Mr. WAXMAN. Thank you very much, Mr. Dorgan. Mr. Kostmayer.

Mr. KOSTMAYER. Just so we are clear, I wanted to say something in response to our colleague from Washington, Mr. Morrison, who did point out that the WIC Program has grown by 60 percent since 1981. That is not because the Reagan administration wanted the WIC Program to grow. The only reason that the WIC Program has grown is because the Congress, and specifically, the House of Representatives has insisted that it grow, and each year since 1981 the Reagan administration specifically has requested that the WIC budget itself either be frozen or be reduced.

In fact, Doctor, for next year, for fiscal year 1986, President Reagan has requested that WIC be cut by \$70 million and that would result in a reduction of the number of women and infants served by that program of 140,000. So it is very important, while Mr. Morrison is quite correct in pointing out that the WIC Program has grown by 60 percent since President Reagan took office, President Reagan has opposed those increases, his administration has opposed those increases very vigorously and has each year since President Reagan has been in office, he has sought to reduce very dramatically WIC funding.

The only reason that it has grown is because the House of Representatives has insisted on that growth.

Mr. WAXMAN. Would the gentleman yield?

Mr. KOSTMAYER. I would be delighted to yield.

Mr. WAXMAN. I just want to correct the record somewhat. Some of the champions of food stamps and some of these other programs have been Republican Senators. In this Congress, we have had some bipartisanship. And we always had, in the beginning when these programs were enacted, a bipartisan consensus that we needed as a society to move forward. But what we now have is a Republican administration that has backed away from that consen-

sus that we have had, from that bipartisan support that we have had. And a weakening by Republican Members of the Congress to stand up and argue with their own administration, or an inability to convince that administration.

Mrs. ROUKEMA. Mr. Chairman——

Mr. WAXMAN. I have the time, I think, and I would like not to yield at this time, if I may, because I think the point is very, very important. And what happens—and I am sorry to be partisan for a moment—is every time President Reagan sends up his budget requests for these dramatic reductions, the Congress—Republicans and Democrats alike in the House—specifically resist them. And then the President comes out and says, well, what are you talking about? WIC has grown by 60 percent. Well, no thanks to him.

Now, let me say, also, that I think the gentlelady from New Jersey made quite a good point when she talked about the socioeconomic factors here. I think maybe we Democrats have somewhat missed the boat on this. Ought we not be insisting that these fathers who have absconded be compelled to pay? And do not the taxpayers have a good point when they say, why should we be paying so much for these programs while the Federal Government is so lax in getting these fathers, who have absconded and deserted their families and their wives and their children, to help support their families? Why ought we not compel them to pay and maybe even put a little more money into enforcement?

Now, is this realistic, or the fathers who have departed, are they simply so poor that they—is this a realistic possibility?

Mr. MAYER. This is a problem I face every day in another qualification, which is what do we do about college students who require scholarship aid because there is only their mother to support them when, in fact for all we know, their father is capable of supporting them. I have made it a rule in my university that we would try to get at the fathers, but it is extremely difficult. So it is a problem which really transcends not only the poor in terms of eating but the middle class in terms of education, and sooner or later we have got to come to grips with this because the poor children do not eat because their fathers have left but I am taxing, if you want, or charging a number of my students more tuition because the fathers of a number of other students left, and there is a basic unfairness going through our society which I hope does not become a partisan problem, but which really, clearly, has to be addressed.

Mr. KOSTMAYER. I think so and I think that those who object to the spending on some of these programs, and I do not happen to be one of them, have quite a good point when they insist that the Federal and State authorities try harder to get the people who are responsible to pay their fair share.

I wanted to make one other point. We provide about \$320 million for voluntary family planning overseas and we provide money to IPPF, the International Planned Parenthood Federation, to the United Nations Fund for Population Assistance. Specifically to the IPPF, which provides, then, money to its affiliates in Africa, Asia, and Latin America—primarily in developing countries—the administration has asked that the \$17 million that we provided to the IPPF for next year, which is one-third of their total budget, that

that be withheld. Can you speak to what you think the effects of that would be?

Mr. MAYER. I can tell you that last summer I was in Asia and I had very long conversations in particular with two friends of the United States, the King of Thailand who received an honorary degree from our university, and the President of Bangladesh, and both of them started the conversation by asking if we had gone completely out of our mind in cutting down funds for family planning overseas by tying it to the existence or nonexistence of abortion? Their point being that in their countries the possibility of abortion was a backup for birth control when it had failed, and that the net effect of cutting down those funds meant far more abortions taking place because birth control funds would not be available, the abortions being done in village conditions where the young mothers would die. This is a situation where ideological considerations have prevailed again over all the facts presently available.

Mr. KOSTMAYER. Mr. Chairman, I ask unanimous consent for an additional minute, if I may have it?

Mr. WAXMAN. Without objection.

Mr. KOSTMAYER. Thank you very much. The Hunger Committee, I think, is going to hold the first of two hearings on this subject of international population problems, I think on the sixth of next month, and it is terribly important because not only is IPPF affected but the United Nations Fund for Population Activities. This Government, the Government of the United States, provides \$46 million annually to UNFPA. There will be attempts on the floor when the foreign aid bill comes up to eliminate all of that because of the problems in China with the coercive birth control programs, which we do not support.

But the final point I would make is that in both the case of the UNFPA and IPPF, no American money is spent on abortions. The Helms amendment from 1974 makes it very clear; we have made that very clear in the language. So abortion is not a case, and I think you have made a very important point, how important these programs are to continue. Thank you, Mr. Chairman, for the additional time.

Chairman LELAND. Mr. Daschle. Mr. Daschle, will you take your time and yield to Mrs. Roukema?

Mr. DASCHLE. I would be happy to take my full 5—

Mrs. ROUKEMA. Is it the only way I can get some time here?

Mr. DASCHLE [continuing]. Minutes and yield to the gentlewoman from New Jersey.

Mrs. ROUKEMA. For the record, and I do appreciate the gentleman from Pennsylvania's comments with respect to the socioeconomic questions, and also the fact that you have quite correctly pointed out the need for child support. But to reiterate, we passed the National Child Support Enforcement Act last year and it should be fully implemented nationwide by this October. We had to allow time for State legislatures to get their laws in compliance with the act's requirements. This year should correct a lot of the problems that we now see in terms of fathers abandoning their children. And Dr. Mayer is quite correct. The statistics show that the tremendous growth of this problem has not been as much in

the poorer or low-income families. Rather, there has been an alarmingly strong growth of the problem among middle-income fathers and even upper-income fathers. It has been a national disgrace and fortunately we are correcting that.

But I must point out here for the record, and I know Dr. Mayer knows this, and certainly Mr. Waxman referred to it, that the Senate's budget does not make the kinds of stringent and drastic or draconian cuts in the WIC Program and certainly—

Mr. KOSTMAYER. Will the gentlelady yield for a second?

Mrs. ROUKEMA. Let me just make this point. Certainly Senator Dole, our Republican leader in the Senate, and Senator Boschwitz are two of the outstanding national leaders in this field, whether it be WIC Program or food stamps, and I for one, speaking for the minority, am grateful for their leadership in this very vital area.

Mr. KOSTMAYER. I just want to add that I hope you would add to the words, to your statement, that the Senate indeed—you are correct—did not make those draconian cuts, add the words: that the administration requested. That is the point.

Mrs. ROUKEMA. You are correct.

Mr. KOSTMAYER. Thank you very much. Thank you.

Mr. MAYER. If I may be permitted to say, we have lost a number of Senate Republicans who were great friends of the food programs like Senator Brooks, Senator Percy, and so on, and all of us who are interested in the food programs are very grateful that Senator Dole is where he is, because otherwise I think we would be in much tougher shape than we are now.

Chairman LELAND. Dr. Mayer, thank you so much for your contribution.

Our next witnesses are individuals who have been involved with Federal health and nutrition programs that care for hungry and malnourished children. Judy McGhee, a mother of four children, is from Newark, NJ, and is a recent participant in the Supplemental Feeding Program for Women, Infants, and Children. Dr. William Bithoney is a physician at Children's Hospital in Boston. He heads that Hospital's Growth and Nutrition Clinic. And Betsy-Ann Neason is a certified family nurse practitioner, serving in a community health center in Grafton, WV.

Thank you all for being here. We have already received written statements from each of you. Those statements will be included in full in the record. For now we would like each of you, to take 4 or 5 minutes to summarize your testimony. We would like to hear from the entire panel first, and then the members will have questions for each of you.

I think we will start with Ms. McGhee.

STATEMENT OF JUDY MCGHEE, WIC PROGRAM PARTICIPANT FROM NEW JERSEY

Ms. MCGHEE. My name is Judy McGhee. I am originally from Birmingham, AL. I am presently living in Newark, NJ. The reason why I am participating in this hearing today is to let my voice be heard for parents, mainly mothers, with the same concerns on child rearing and nutrition, and how we survive as a whole.

I would like to share my experiences with you, but first I would like to start by saying, at one point in my life I lived a very comfortable life. I was part of the working class of people such as you, I had a very promising start in various business positions such as typing, clerical skills, business management, and air travel training.

However, my life took a turn. Moving to another State where the cost of living was higher and I was away from my family, it put my back up against the wall, so to speak. My life began to get difficult in many ways. I later became pregnant and was unable to work. I applied for AFDC and I was told that I was at this point not eligible to receive food stamps. As far as the money was concerned, I would have to wait until after the birth of the baby.

At this point I was surviving off of my mother's small income in which she was providing for herself. At this point it was just not enough to give me the nutritional, extra nutritional food intake my unborn child needed for growth and development. My physician had made me aware at this point of my diet. I needed extra dairy foods, fresh vegetables, and fruits, most of which I was getting very little of.

This is when I turned to the WIC Program for help. Without the WIC Program I really do not know how I would have produced a healthy baby weighing 7 pounds, 14½ ounces. Since then I have become a proud mother of four. I have a 5-year-old, a 3-year-old, and a set of 1-month, 9-day-old twin girls. The WIC Program was a real help to mothers like me with infants and small children. Mainly, if you are living on a low-income budget in a high-crime area where the cost of food is skyhigh and your food stamps just can't seem to cut it, the WIC Program can be sort of like a matter of life or death.

Let me give you an example of my income and the expenses so you can comprehend exactly the situation. OK, I receive \$385 per month in AFDC, \$117 in food stamps. With this I have to pay for rent and food, nonfood necessities, clothes and shoes and household things. I have no other income at this point.

The market in my neighborhood doesn't give me very much of a choice of anything. The vegetables and the fruits, the meats, are not fresh at all. They are asking too much money particularly during the first of the month.

OK, I only go to the neighborhood supermarkets once per week, and that is only to buy odds and ends. Usually to shop I have to go out of my neighborhood into, pass the downtown area into another neighborhood in order to get fresh items at a reasonable price. I am sort of a very careful shopper. I have to be in this case. I try to buy large quantities to stretch my budget as much as I possibly can. I also shop at discount meatpacking houses. Some items right at this point are still out of my reach. I just simply cannot afford it. I settle for frozen or canned vegetables, no frill items, and store specials.

As I said, the WIC Program really can be a help. I could have lost my twins but this program helped me to save them. I was anemic at this point and I really needed all the nutrition that I possibly could get.

I did not get on the program until late this time. This was during my 6th month of pregnancy. There was sort of a mixup at the neighborhood clinic which I attend. The desk clerk had told me when I went to apply that I could not get on at that point. I was later told by the WIC interviewer that I was given misinformation and I should have been on sooner.

I was then asked the questions which were required by this program. I was asked how I was surviving on so little nutrition. I explained to them that I had two other small children home and I would just sacrifice myself that I would know that if they would at least get one glass of milk per day, I would feel a lot better. So this is what I had to do.

With the WIC Program I was able to get extra nutritional foods which my body needed at this point. But that still was not enough. I was then later hospitalized during my 8th month and put on a special nutritional diet in order to give birth to two healthy babies weighing 4 pounds 11 ounces, and 4 pounds 12 ounces.

I feel this program was extremely needed and should remain active for mothers during this period and after the birth of the baby. My twins are not on this program right now, or any other program for that matter, but as soon as I am able to put them on the WIC Program I know the WIC Program will be able to help me purchase the Enfamil.

The Enfamil costs \$1.99 for a quart can. I just cannot afford those prices right now, with the two babies drinking the Enfamil. Right now I am nursing the babies and substituting them with my own Carnation formula. I know this is not the best thing right now but sometimes we are forced to do these things. I am going to just apply as soon as I possibly can for this help.

Then again, like I said, this program is extremely needed. Then again, which mother would stand by and see her children without anything, to see them go without milk just because she simply cannot afford to pay the prices that the market is asking?

Thank you for giving me an opportunity to speak in my behalf and to share my experiences with you. This has really been an experience for me.

RESPONSES TO QUESTIONS FOR JUDY MCGHEE

QUESTIONS SUBMITTED BY HON. MICKEY LELAND

Question. You say you have many job skills and know how to look for a job. When your infants grow older would you like to work? What help would you need to begin working and become less dependent on AFDC and food stamps for all your income?

Answer. Yes, I do have many job skills, as I mentioned. When my infants reach at least 9 months of age I will waste no time at all looking for work. The only thing really holding me back and has kept me from working is the lack of decent child care in the area where I live. There would be no way I would be depending on AFDC if there was good child care in the area. I don't have family in the State. The only real help I had was my mother and she had to move back to Alabama for health reasons.

All of my friends live in better parts of the city and work. They are afraid to even pass through this area for fear they might be mugged or the car stripped. I lost most of my friends when I moved to this area, but I had to move where I could afford to pay rent. Most of the people there do not live the lifestyle I wish for my children, so I stay home and tend to their needs myself. I have to suffer a little, but I feel I give them better care as a parent.

I once tried to go back to work and leave the older girls at a private school. But I had to quit because the child care was terrible. The place was unsanitary and the children were coming home dirty and not learning anything. I took them out of there and sent them back to the Head Start Program which is only half a day.

Question. From your own experience and that of the women you know, do most pregnant women or mothers on AFDC know that they or their children may be eligible for WIC?

Answer. Yes, most mothers on AFDC know about the WIC Program. On AFDC, most women can't get the proper nutrition for their bodies. The physician would most likely explain the importance of getting extra nutrition if you are pregnant and would suggest the WIC Program to help in purchasing some of the foods rich in nutrition. The mothers are aware and try to apply for the program.

Question. What factors make it difficult for you to enroll on the WIC Program?

Answer. The hardest factor for someone eligible to enroll on WIC is the long wait for an appointment. When you call for an appointment you may be told to report almost 1 month later. Waiting for this appointment for enrollment and recertification is a waste of the time you could be getting good nutrition.

[The prepared statement of Ms. McGhee appears at the conclusion of the hearing, see p. 64.]

Chairman LELAND. Thank you very much, Ms. McGhee. You have done very well, I might add. Dr. Bithoney.

STATEMENT OF WILLIAM BITHONEY, M.D., DIRECTOR, THE GROWTH AND NUTRITION CLINIC, CHILDREN'S HOSPITAL, BOSTON, MA

Dr. BITHONEY. Good morning. My name is Dr. William Bithoney, and I am currently the director of the Growth and Nutrition Clinic at Children's Hospital in Boston.

This clinic was established with funding from the State of Massachusetts, Department of Public Health, in order to treat children suffering from undernutrition, also known as the failure-to-thrive syndrome.

Failure to thrive occurs in all socioeconomic strata. Children can become malnourished for any of a number of reasons, including organic medical disease or psychologically based eating disorders. However, it is our clear experience confirmed by the results of the Massachusetts nutrition survey, a copy of which I have provided to the committee, that the incidence of childhood undernutrition seems to vary linearly with poverty.

I would like to briefly summarize in three sentences, literally, the results of the Massachusetts nutrition survey. We measured the heights, weights, and blood counts of 1,429 low-income children in Massachusetts, aged 6 months to 5 years and 11 months. What we found was that 5 percent of them had evidence of undernutrition. More than 12 percent of them were anemic. Of children living below the Federal poverty level, fully 7 percent of them had evidence of chronic undernutrition. Overall, 18 percent of children surveyed had some nutritional deficiency.

Because of these findings, the Commonwealth of Massachusetts passed a first-in-the-Nation supplemental nutrition bill and funded our clinic. We have been operating since August 1984. Since then we have seen 59 children suffering from the failure-to-thrive syndrome.

As I mentioned, some undernourished children are relatively wealthy and fail to grow for reasons other than the inability to purchase food. However, the overwhelming preponderance of chil-

dren suffering from severe malnutrition in our clinic are desperately poor.

Internationally, malnutrition is graded as first, second, or third degree. Third-degree malnourished children are similar to those seen on the nightly news in Ethiopia or Biafra. Since August 1984 we have seen 13 children in Boston suffering from third-degree malnutrition in our clinic. Ten of these children were living below the Federal poverty level. All of them had family incomes less than \$7,000 per annum.

In our clinic we actively advocate for children, enrolling them in the WIC and Federal Food Stamp Programs. Without access to these Federal supplemental nutrition programs, our hands would be tied. We could not treat these children adequately. I would like to present to the committee two case examples.

Case 1. I was asked to examine a 2½-year-old child who was dropped from the WIC Program because her mother did not comply with the necessary administrative requirements of the program. At the time that the child was dropped from the program, her weight was 28 pounds, which was quite normal for her age. Over a period of 8 months the child's weight fell to only 22 pounds. She became acutely malnourished; that is, third-degree malnourished over this period. Her weight at age 3 years and 2 months was that of a normal 14-month-old.

The child developed severe pneumonia exacerbated by the malnutrition. Mother informed me that since being cut off WIC she had been unable to afford food for her child. Because of the anemia and undernutrition the child was easily reenrolled in WIC and over the past year has recovered beautifully.

Case 2. A 1-year-old child was dropped from the WIC Program, again because of procedural issues and subsequently became undernourished. Her mother who stated that she could not afford formula or milk for the child any longer fed her diluted coffee lightener, hoping that this would be adequate.

The child fell from approximately the 50th percentile to the 3rd percentile until reenrolled in WIC. This means that her weight fell from 20 pounds to 18 pounds over 9 months. Thus, at age 21 months she was the size of a normal 8-month-old.

In summary I would like to make three points:

Childhood undernutrition is a significant problem in the Commonwealth of Massachusetts, a Commonwealth, I might add, that is one of the most wealthy in the country.

Second, that the WIC and Food Stamp Programs play a significant role in preventing undernutrition. I direct a clinic that sees many undernourished children. Just as penicillin is used to treat pneumonia, we use Federal food programs to fight undernutrition.

Finally, I would like to state clearly to this committee that there exists in the State of Massachusetts a group of children whose access to food is tenuous at best. These children depend in large measure on Federal food assistance programs in order to prevent them from becoming undernourished. I know this for I see them weekly.

Thank you.

RESPONSES TO QUESTIONS FOR WILLIAM BITHONEY, M.D.

QUESTIONS SUBMITTED BY HON. MICKEY LELAND

Question. You discuss specific cases in which services to children participating in WIC had been terminated because of procedural issues and not budget reductions. While not participating in the program these children suffered illnesses exacerbated by malnutrition. Subsequently they were re-enrolled. Would you explain to us the administrative policies which caused the termination of their benefits?

Answer. The procedural issues which caused these children to be dropped from the program are two:

1. The parents of both of these children did not come in for their child's physical exam forms to be completed.

2. They also did not have their children tested for anemia and lead poisoning.

Both of the above are necessary administrative requirements of the program. The intent of these requirements is good. Children need to be tested for anemia and they need physical exams in order to detect undernutrition. Unfortunately, poor parents often are unable to organize their lives adequately enough to meet these requirements even though they would like to meet them. Obviously, the children I described lived a tenuous existence. They could ill afford to have their food cut off for any reason.

Question. You have noted that third-degree malnourished children you treat are similar to those seen on the nightly news living in Ethiopia or Biafra. Would you explain more fully what the particulars of both second- and third-degree malnutrition are?

Answer. Malnutrition is described using many quantitative methods. One extremely common, and simple method is the one we use in our clinic. I have supplied for your interest a copy of a growth chart for infant girls aged 0-36 months. The degree of malnutrition is determined by plotting a child's weight for age on the chart and then calculating what percent of the so-called standardized or 50th percentile weight this child has attained.

For example, the 50th percentile weight for a 12-month-old girl, as read from the enclosed chart is 21 pounds. A 12-month-old child who weighs 14 pounds is obviously undernourished and weighs $(14/21 = \frac{2}{3} = 67 \text{ percent})$ 67 percent of the 50th percentile. The generally accepted definition of the degrees of malnutrition follows: 75-85 percent of the 50th percentile weight for age equals first-degree malnutrition. 60-74 percent of the 50th percentile weight for age equals second-degree malnutrition. Less than 60 percent of the 50th percentile weight for age equals third-degree malnutrition.

The above presented percentiles represent the Gomez criteria for undernutrition. Many other, more complex formulae exist but these calculations are simple and very reliable.

Third-degree malnutrition such as that seen in the children presented to the committee has the greatest implications for both intellectual development (morbidity) and survival (mortality). In the third world these children die at an alarming rate, (usually they die from infections brought on because their immune systems are compromised) this mortality rate may be as high as 20 percent per annum according to some estimates. In the United States, thankfully, we rarely see mortality due to undernutrition alone. When children get infections we give them antibiotics before they become severe. We also intervene vigorously to prevent subsequent undernutrition.

DISTRIBUTED BY **MeadJohnson** NUTRITIONAL DIVISION

Maker of

Enfamil
Infant Formula

Enfamil
Infant Formula

ProSobee®
Formula with
Soy Protein Isolate

**GROWTH CHARTS
WITH REFERENCE PERCENTILES
FOR GIRLS
BIRTH TO 36 MONTHS OF AGE**

Length for Age
Weight for Age
Head Circumference for Age
Weight for Length

NAME _____

RECORD • _____

DATE OF BIRTH _____

[illegible]

These charts to record the growth of the individual child were constructed by the National Center for Health Statistics in collaboration with the Center for Disease Control. The charts are based on data from the Fels Research Institute, Yellow Springs, Ohio. These data are appropriate for young girls in the general U.S. population. Their use will direct attention to unusual body size which may be due to disease or poor nutrition.

Measuring: Take all measurements with the child nude or with minimal clothing and without shoes. Measure length with the child lying on her back fully extended. Two people are needed to measure recumbent length properly. Use a beam balance to measure weight.

Recording: First take all measurements and record them on this front page. Then graph each measurement on the appropriate chart. Find the child's age on the horizontal scale; then follow a vertical line from that point to the horizontal level of the child's measurement (length, weight or head circumference). Where the two lines intersect, make a cross mark with a pencil. In graphing weight for length, place the cross mark directly above the child's length at

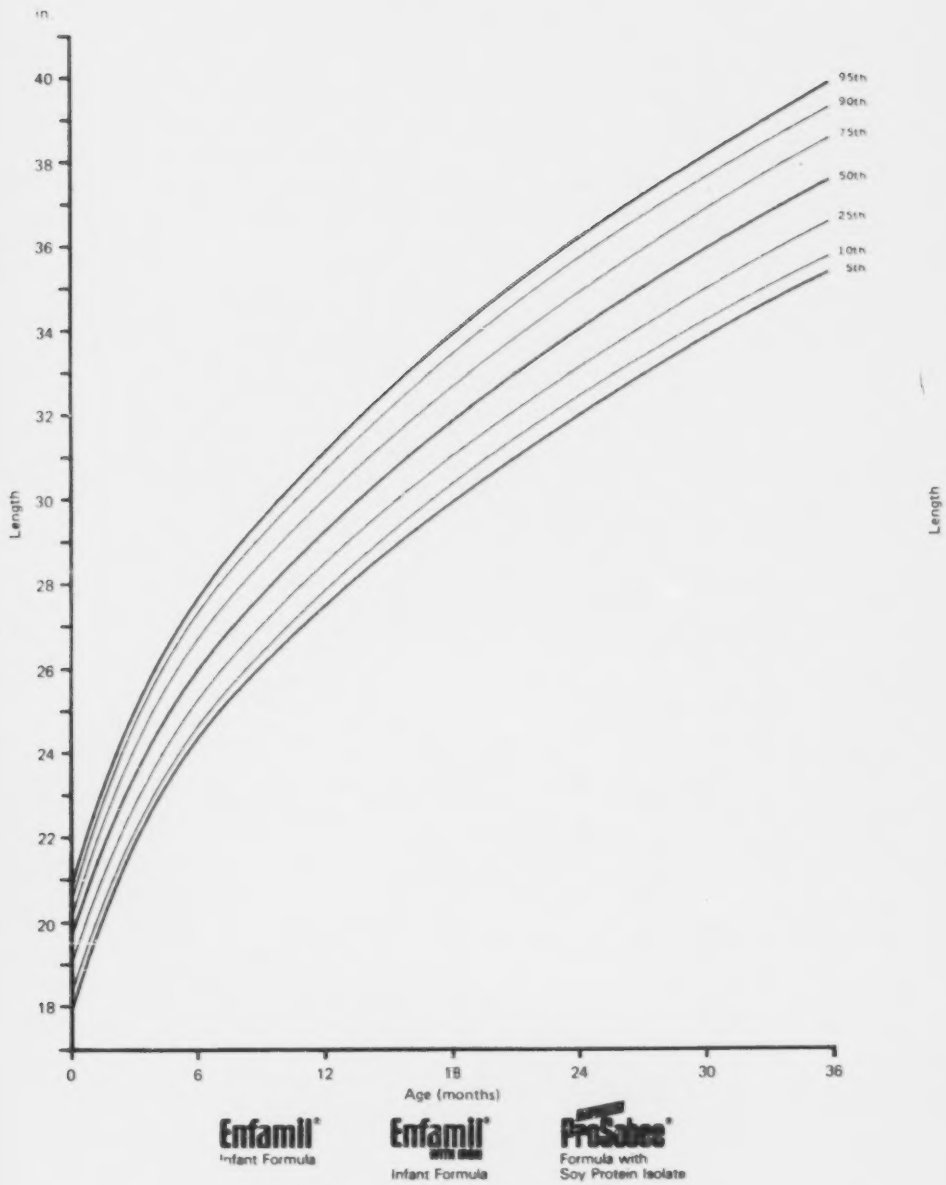
the horizontal level of her weight. When the child is measured again, join the new set of cross marks to the previous set by straight lines.

Interpreting: Many factors influence growth. Therefore, growth data cannot be used alone to diagnose disease, but they do allow you to identify some unusual children.

Each chart contains a series of curved lines numbered to show selected percentiles. These refer to the rank of a measure in a group of 100. Thus, when a cross mark is on the 95th percentile line of weight for age it means that only five children among 100 of the corresponding age and sex have weights greater than that recorded.

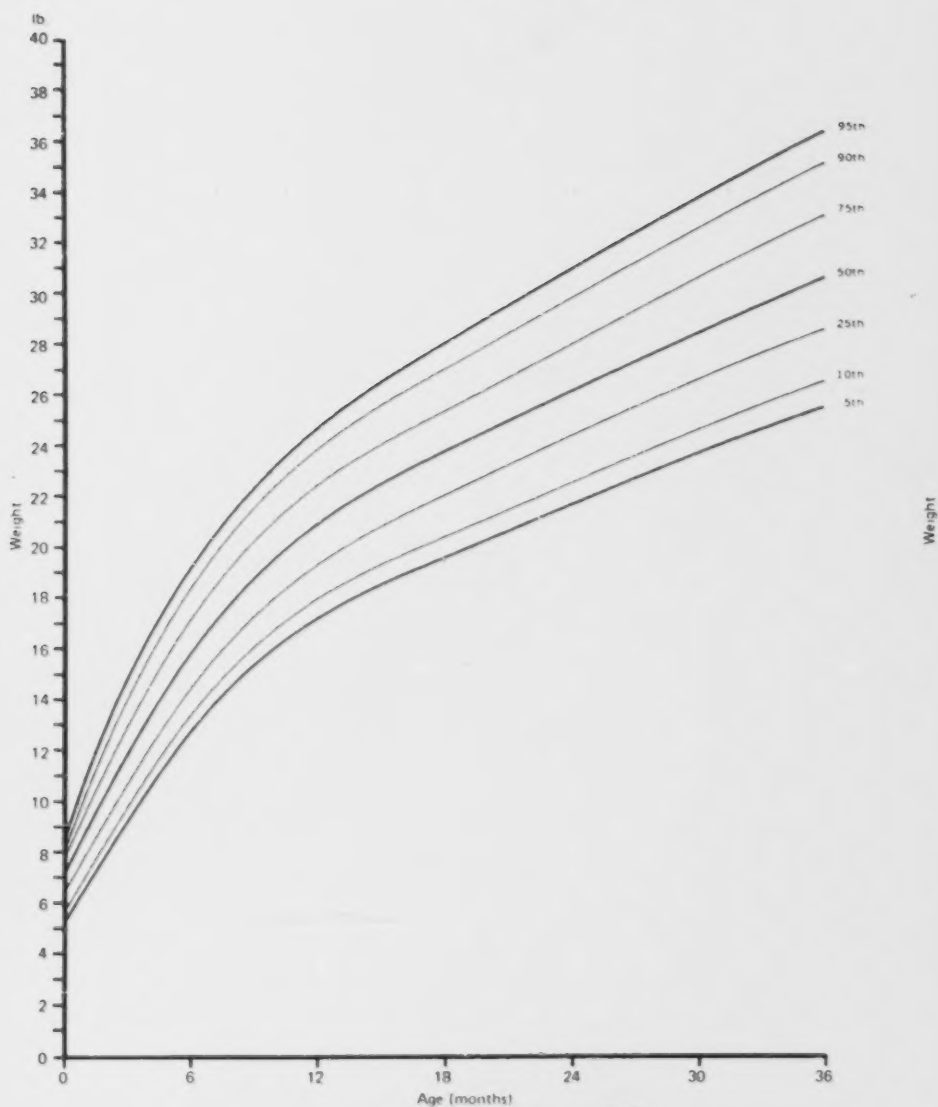
Inspect the set of cross marks you have just made. If any are particularly high or low (for example, above the 95th percentile or below the 5th percentile), you may want to refer the child to a physician. *Compare* the most recent set of cross marks with earlier sets for the same child. If she has changed rapidly in percentile levels, you may want to refer her to a physician. Rapid changes are less likely to be significant when they occur within the range from the 25th to the 75th percentile.

GIRLS FROM BIRTH TO 36 MONTHS
LENGTH FOR AGE



GIRLS FROM BIRTH TO 36 MONTHS

WEIGHT FOR AGE



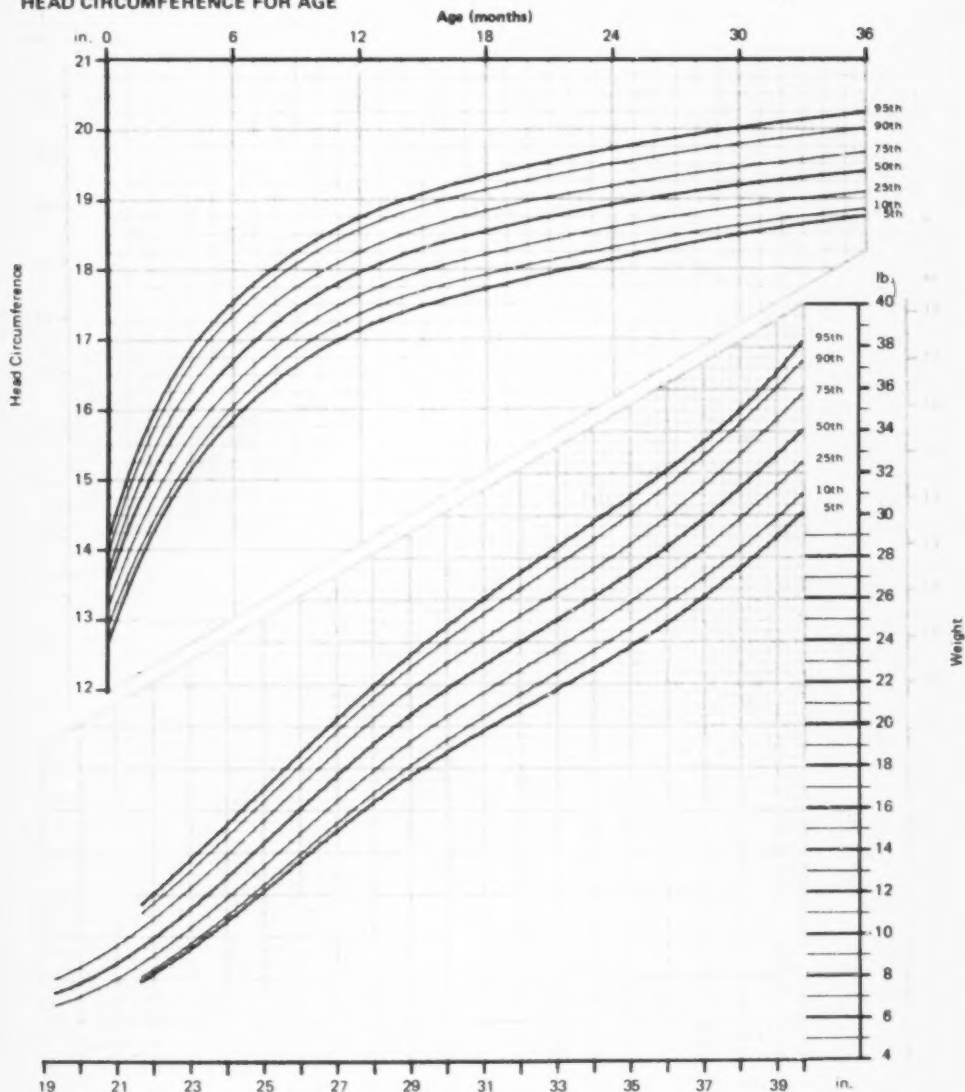
Enfamil
Infant Formula

Enfamil
Infant Formula

ProSobee
Formula with
Soy Protein Isolate

GIRLS FROM BIRTH TO 36 MONTHS

HEAD CIRCUMFERENCE FOR AGE



Length

Enfamil
 Infant Formula

Enfamil
 Infant Formula

ProSobee
 Formula with
 Soy Protein Isolate

WEIGHT FOR LENGTH

[The prepared statement of Dr. Bithoney appears at the conclusion of the hearing, see p. 65.]

Chairman LELAND. Thank you very much, Dr. Bithoney. Ms. Neason, I know that you have a plane to catch. We are going to make sure that you get to the airport on time. We have a vote in progress. I am going to have to run, suspend the hearings just for a few minutes and come back as soon as possible.

[Whereupon, at 11:48 a.m., the subcommittee and committee recessed to vote on the floor, and reconvened at 12 noon.]

Mr. WAXMAN. The meeting will please come back to order. If we can continue the testimony, Betsey-Ann Windsor Neason, we would like to hear from you.

STATEMENT OF BETSEY-ANN WINDSOR NEASON, CERTIFIED FAMILY NURSE PRACTITIONER, MEDICAL CENTER OF TAYLOR COUNTY, GRAFTON, WV

Ms. NEASON. Thank you. I am Betsy-Ann Neason, a National Health Service Corps-educated family nurse practitioner, certified by the American Nurses Association, and working in a federally subsidized community health center in a predominantly white area of rural West Virginia.

My health center serves a community of approximately 17,000 persons. This is Taylor County, which is approximately 100 miles south of Pittsburgh, PA. The county unemployment rate is that of about 22 percent.

I am here today to speak to you regarding hunger and malnutrition of children in rural West Virginia. The type of hunger generally seen in our area is not the dramatic cases of children lying limp with bloated bellies and sunken eyes, but the effects on their development both physically and mentally cannot be overlooked.

A case in point: a 14-year-old girl who presented to the clinic with the complaint of abdominal pain reported to the provider that she and her brothers and sisters would go to the garbage dump of a local supermarket to find food for dinner. With this history the provider contacted the Department of Human Services for evaluation of the home situation which unfortunately was found to be as bad or if not worse than the child described.

The child and the family were counseled by the provider and assistance from an outside source was sought and obtained to aid the family in finding a better way to provide food for its members.

Another local family of three children ages 7 to 12 and their mother have a Saturday morning ritual of combing the garbage cans of local taverns to find cans and bottles that are redeemable for cash. With this money they buy food. The alcoholic father receives a sizable pension check. However, he does not share this with his family.

The Department of Human Services has to consider this as the family's income, which makes them ineligible for financial or medical assistance. The problem was first discovered during one of the children's frequent visits to the clinic for numerous complaints; that is, cold, stomach viruses, rashes, ear infections, et cetera.

Another large family of seven children and their parents have reported, again during a medical visit, of obtaining food at times

from the local city dump. They also are ineligible for financial assistance because the head of the family does manage to work at odd jobs fairly frequently, therefore making their income in excess of the stipulated guidelines for assistance. The family has numerous medical visits annually for a variety of complaints.

An unforgettable incident that comes to my mind is that of a mother who brought her very small 14-month-old child in for an illness that was characterized by vomiting and diarrhea. This we treated symptomatically with just clear liquids for 12 to 24 hours with the idea that she would resume normal feedings at the time that the symptoms ceased. Unfortunately, when the mother and child returned to the clinic a month later, the mother had not resumed normal feedings because she was afraid the daughter would start vomiting again. Upon entering the exam room it was noted that the child was drinking Sprite from a nursing bottle and eating a bag of corn chips. It was noted at this time by blood tests that she was anemic and was not receiving any assistance through the WIC Program. We did at this time refer her to this agency.

In addition, further medical testing at a later date, when she was 17 months old, revealed by x ray that the bone age of this child was that of a 10-month-old.

These children are documented as frequent users of this health center. They suffer from frequent bouts of illnesses such as viruses, intestinal disorders, bad teeth, iron deficiency, learning disorders, and behavior problems. Our local school board or school system does offer reduced and free breakfasts and lunches to any qualifying student, and it must be noted that on a daily basis over 800 children in the county take advantage of this program, and this is on an elementary level.

It must also be noted that teachers have reported on one or more occasions that a student having received his free meal and having his stomach filled, actually fell asleep with contentment.

With this in mind, one cannot help but wonder how significantly the hunger cases and health-related problems would increase if the free meals would cease to exist. The concern is not only for the child while they are in school. It is when they are out of school, holidays, summer vacations, et cetera. It is on record that a lot of these children have nothing to eat during those times.

In regard to the four hunger or malnutrition cases presented for your consideration, all were initially brought to the health center for specific medical complaints. However, many times the initial reason for visiting the clinic is not necessarily a medical problem directly associated with malnutrition. To the alert provider, however, a visit for an acute illness may reveal through the initial screening process that of height, weight, and social history, that the child is either small for age, or demonstrates evidence of a nutritional problem. This being noted, a workup of the problem is done which may reveal a nutritional disorder.

At the local community health center it is important to note that 70 percent of all of our patients require some sort of governmental assistance to receive their health care and of this 70 percent, 27 percent rely solely on the community health center's Federal grant dollars for aid. The uninsured and medically indigent populations cannot turn to the private sector for their health care needs. Pri-

vate practitioners are not required to routinely provide services to those who cannot pay. This is where the true strength of the federally subsidized community health center lies. They provide quality health care to everyone, regardless of their ability to pay.

Thank you.

RESPONSES TO QUESTIONS FOR BETSY-ANN WINDSOR NEASON

QUESTIONS SUBMITTED BY HON. MICKEY LELAND

Question. Ms. McGhee testified that although she had a high risk pregnancy she was not referred to WIC until late in her pregnancy. She also reported that her twins are not on WIC. How can WIC be better integrated with health care to insure that those at nutritional risk receive the food benefits they need?

Answer. Providers of maternity care need to be aware of available programs, the eligibility guidelines and method of patient referral into these agencies.

Question. How do the ups and downs in WIC funding each year affect your patients who need this supplemental nutrition assistance?

Answer. We try to refer anyone within the eligibility guidelines. The only problem is that with variable funding, WIC has to sort the clients out as they come through the agency. This is one reason we try to provide some infant formula when available.

[The prepared statement of Ms. Neason appears at the conclusion of the hearing, see p. 85.]

Mr. WAXMAN. Mr. Leland.

Chairman LELAND. Thank you, Mr. Chairman.

Mr. WAXMAN. Ms. Neason has a plane to catch and perhaps we can ask questions of her first and allow her to leave.

Chairman LELAND. Ms. Neason, do you find that there are pockets or groups of low-income people who do not have access to the nutrition and health programs and are hidden from any national nutrition monitoring system?

Ms. NEASON. They seem to be, yes. I do not know how we can deal with that, but they do slip through the cracks, whether it is that they are eligible and do not know how to apply. One area is that the WIC Program in our area becomes approximately maybe once a week or biweekly, I am not sure which, but their main office is in Morgantown which is 26 miles away. All appointments for that program have to go through that center and if these people do not have money they do not have money for the phone call either.

Chairman LELAND. What kind of services need to be funded to bring these persons into the system and prevent hunger and its damaging health effects?

Ms. NEASON. It would seem to me that probably an increase in the guidelines for the Food Stamp Program would be a big help. Our mean income in the county is approximately \$12,000 and with—the unemployment rate as you know in West Virginia is the highest in the country anyway, and in our county, being basically coal miners and railroaders, it is definitely a problem.

Chairman LELAND. Do you often treat infants whose mothers are like Ms. McGhee, who cannot afford to purchase an adequate supply of formula for their infants?

Ms. NEASON. Yes, we do. And we usually supply them with formula when we can.

Chairman LELAND. Mr. Chairman, I will hold the rest of my questions for the other panelists.

Ms. NEASON. Thank you.

Chairman LELAND. Ms. Neason has to leave.

Mr. WAXMAN. Mr. Kostmayer, do you have any questions for Ms. Neason?

Mr. KOSTMAYER. No. I don't have any questions.

Mr. WAXMAN. Let me ask you this one question. To what extent do you think Medicaid payment policies impede access to services that are needed by malnourished children? For example, I understand Medicaid does not pay for vitamin supplements. Are there other types of services that these children are not receiving because Medicaid will not pay for them?

Ms. NEASON. Probably one of the things is, the health care generally, children with chronic illnesses are not necessarily covered under Medicaid such as if we have a child that is diabetic. They cannot necessarily get medical assistance. You know, care of a diabetic is a very expensive proposition, with blood testing and that kind of thing that they should be doing at home.

That would be one big thing. One thing that we are doing, we are part of the early periodic screening program, which covers not only Medicaid but it also covers the pediatric population that is not covered by Medicaid, so we do catch them in that area sometimes.

Mr. WAXMAN. And how do you deal with the undernourished children who are too old to qualify for WIC? What types of health programs do you see for older children?

Ms. NEASON. The health programs for older children, we usually get them on the sliding fee scale. We try to give them their vitamins as much as we can, and things like that. As far as food programs, we do not have any.

Mr. WAXMAN. Are there any questions by other members of Ms. Neason? If not, thank you very much for being with us. Oh, yes?

Ms. NEASON. Excuse me. I will say, in deference to the committee, I will go over your testimony. It will be on record, and you can be sure that we will read it.

Mrs. ROUKEMA. Thank you very much.

Ms. NEASON. Thank you. It has been a pleasure. Thank you.

Mr. WAXMAN. Thank you so much. Mr. Leland.

Chairman LELAND. Yes. Mr. Chairman, thank you. I would like to ask Ms. McGhee a couple of questions.

Ms. McGhee, you told us that you have trouble making ends meet for you and your four children. How much of your AFDC benefits must go to buying food each month?

Ms. MCGHEE. OK.

Mr. WAXMAN. You need to turn your mike on.

Ms. MCGHEE. How much of it? OK. I will break it down a little bit so you can understand totally where I am coming from.

Chairman LELAND. OK.

Ms. MCGHEE. As far as my food stamps, I told you I receive \$117. OK, in order to stretch it as far as I can, what I would do in terms of dollars and cents, I would take that amount and I would try to wait until at least the 15th of the month to do my shopping. OK? When the price is down lower, because the first of the month they are sky high. OK? And like I said, I will buy large quantities. OK? I buy all at one time. I spend the whole thing at one time, the whole amount of the food stamps.

And then, I would just spend weekly. I have not, like, sit down and add it up how much I spend per week. It is somewhere in the range of maybe, at least \$25 from the neighborhood store. But that whole \$117, I take that and spend it all at one time. I have to, because if I do not and have to go to the neighborhood store, I will not see the food. I will be wondering, you know, I have spent all my money and where is the food? If I purchase it in another neighborhood, say, for example if I spend \$25 at my neighborhood store, okay, I may come out with one bag of food, where I take that same \$25 and I might come out with at least 3½ bags of food. So this is how I maintain.

Chairman LELAND. How do you pay your other bills?

Ms. MCGHEE. Excuse me?

Chairman LELAND. How do you pay your other bills?

Ms. MCGHEE. OK. During the first of the month I would pay my rent, right away. I would pay my telephone bill, and I would look around to see the things that are most necessary at that point, and then I purchase it. Then what is left I set aside a certain amount of money, green money, to go with the food stamps when I am doing my total shopping for the month. And I hold on to what is left to maintain dairy products, mostly, or nonfood items throughout the rest of the month. And by the end of the month I am wiped out.

Chairman. LELAND. Dr. Bithoney, it is my understanding that there are few growth and nutrition clinics in the United States. Would you elaborate on the conditions which prompted Massachusetts to fund these special projects?

Dr. BITHONEY. Well, a number of physicians and State legislators and people working in the Department of Public Health, more specifically Commissioner Bayliss Walker and Bernard Guyer who is the director of Family Health Services in the Department of Public Health in Massachusetts, were concerned in the spring of 1982 because a number of clinicians in Boston had reported that they were seeing an increasing incidence of undernourished kids.

So with the assistance of those folks and under their direction, specifically, people banded together. Dr. Dietz, for example, Dr. Deborah Frank, a number of people were involved in this study. We did the study that I have presented to you. And based on the results of that study Governor Dukakis specifically with the Massachusetts State Legislature passed a supplemental nutrition budget that funded a series of clinics throughout the State of Massachusetts; one at Tufts University, one at Boston University, one at Children's Hospital in Boston, one in Worcester, and one in Springfield.

Chairman. LELAND. To what extent have you found third-degree malnutrition in your studies?

Dr. BITHONEY. With regard to the overall Massachusetts nutrition survey?

Chairman. LELAND. Yes.

Dr. BITHONEY. The incidence of acute third-degree malnutrition as seen in that study was really very small. I was quite surprised, I must say, once we started our growth and nutrition clinic, that I found 13 of the first 59 kids that came through the door were indeed third-degree malnourished. As I said, that is the worst

degree. And that 10 of them were living below the Federal poverty line.

I myself, even though I have been interested in nutrition and worked with kids who are failing to thrive for the past 6, 7 years, as a specialty, was very surprised. So I think the Massachusetts nutrition survey may be a gross underestimate of the incidence of undernutrition. It may not be. I have not conducted a broad-based epidemiologic study. I am only getting referred the kids that other clinicians send me.

Chairman. LELAND. Very good. Thank you, Mr. Chairman.

Mr. WAXMAN. Thank you, Mr. Leland. Mrs. Roukema.

Mrs. ROUKEMA. No, I have no questions.

Mr. WAXMAN. Mr. Kostmayer.

Mr. KOSTMAYER. Ms. McGhee, I want to ask you a question which may seem personal. If you do not want to answer it, you do not have to at all. You are married? You are not married?

Ms. MCGHEE. No, I am not married.

Mr. KOSTMAYER. Have you ever been married?

Ms. MCGHEE. No, I have not.

Mr. KOSTMAYER. Did you have any counseling prior to your first pregnancy, and then your second, and third pregnancy, about the problems you would face as a single parent? In other words, did you meet with a social worker? Did they advise you about the problems that you would face, once you had a family, and the economic problems you do have?

Ms. MCGHEE. I had no counseling prior to my first pregnancy, as far as AFDC is concerned. They ask you for the required information only after the birth of the baby. As far as the problems single parents face—nobody knows better than I. I did not plan any of my children I did not expect to get pregnant. Each time before I gave birth, I gave it long thought. I knew I was not prepared for a family life. I had no husband and I knew what kind of life this would be for the children. But, I don't believe in abortion. It's against my faith. I have no right to kill. I feel only God gives life and only He has the right to take it away.

Mr. KOSTMAYER. How about the—I am sorry; go ahead.

Ms. MCGHEE. They are strictly to find out what happened after the birth of the baby, once you are applying, or whatever. But they do not give you any type of advice in that area.

Mr. KOSTMAYER. You mentioned the family planning clinic. Is there a family planning clinic in your neighborhood?

Ms. MCGHEE. Yes, there is.

Mr. KOSTMAYER. And did you take advantage of their services? Did they provide counseling?

Ms. MCGHEE. Yes, they provide counseling if you are interested. OK, most of the time your physician will make you aware of these things and give you a various amount of maybe different kinds of birth control offers, after you become pregnant the first time. So that you would not sort of get caught—

Mr. KOSTMAYER. Sure.

Ms. MCGHEE [continuing]. Unguarded the next time. I would like to clear up some thoughts on how I could have gotten into this situation of becoming pregnant. I was on a birth control method, the "pill," since 1979, after the birth of my first child. I have had many

problems with the pills; my doctor changed them several times. I've had lumps in my breasts, swelling of the feet, headaches, sleeping disorders, nausea, numbness in the hands and legs. During the time I was taking the pills, I still became pregnant. It was hard for me to deal with this each time, not knowing the effects of the pills on the unborn child. I did lot of praying, just for a normal child.

I had no idea I was with child this last time, until I was almost 4 months pregnant. I did not show and I kept on having regular menses until the last part of the fourth month.

I hope this clears up some of the questions in your mind. I have lived both sides of life and had to stand by these decisions in my life. I never thought I would end up in this situation, however, I will not depend on AFDC the rest of my life. I will work and provide for my family.

Mr. KOSTMAYER. Thank you very much, Ms. McGhee. We appreciate it. Thank you, Mr. Chairman.

Mr. WAXMAN. Mr. Nielson, do you have any questions?

Mr. NIELSON. Well, let me thank both of you very much for your presentation to us. I think it has been very helpful information.

Mr. WAXMAN. Our last panel of witnesses is comprised of various experts in the field of nutrition. Each of them will present findings of recent studies concerning the hunger problems as it affects children. Dr. Aaron Shirley is the project director for the Jackson-Hinds Comprehensive Health Center in Jackson, MS. Dr. Shirley has served on the Physician Task Force on Hunger in America. His committee's report has just been released.

Dr. Katherine Christoffel is a pediatrician at Children's Hospital in Chicago.

Dr. William Dietz is on the faculty of Tufts University School of Medicine and directs the Clinical Nutrition Program of the New England Medical Center in Boston.

Dr. Ernesto Pollitt is professor of Nutrition and Behavioral Sciences at the University of Texas in Houston.

I would like to ask each of these witnesses to come forward.

We would like to welcome each of you to our hearing today. Your prepared statements will be made part of the record in full. We would like to ask each of you to summarize that statement in around 5 minutes, if you could try to keep to that period of time. Dr. Shirley.

STATEMENT OF AARON SHIRLEY, M.D., PROJECT DIRECTOR, JACKSON-HINDS COMPREHENSIVE HEALTH CENTER, JACKSON, MS

Dr. SHIRLEY. Thank you, Mr. Chairman and members of the panel.

Mr. WAXMAN. Could I recommend putting the mike a little closer? Thank you.

Dr. SHIRLEY. My name is Aaron Shirley. In addition to being the project director of the Jackson-Hinds Comprehensive Health Center I am also a practicing pediatrician in Jackson and I serve as the chairman of the Board of Trustees of the Mississippi Medical and Surgical Association, which is an affiliate of the National Medical Association.

As a member of the Physician Task Force on Hunger in America, I traveled around the country in 1984 looking at evidence on the prevalence and impact of hunger on the poor. I have made similar journeys twice before, in 1968 and again in 1977 as a participant with the Field Foundation's Survey on Hunger.

What we found this time was of particular concern to me because there was evidence that we might be regressing back to the conditions of 1968 when we found children in various parts of the country who were on the verge of actual starvation. They were stunted in their growth and development, dull, and with very little vigor expected of a 3-, 4-, or 5-year-old child.

What we saw recently in 1984 is troubling enough. We saw children who are undernourished and whose growth and development has been compromised. We saw pregnant women who lacked the diet needed for good prenatal care. We saw men and women in the prime of life who were underweight, clinically depressed, burdened with diet-related illnesses. We saw elderly people who knew that they were supposed to stick to carefully selected foods because of chronic illnesses with which they live but cannot begin to afford those medically indicated diets.

What we saw first hand has been confirmed and enriched by information from local physicians and health providers around the country. Wherever those who care for the poor reported their clinical observations or research findings, it revealed more of what we saw with our own eyes.

The Massachusetts Nutrition Survey has already been mentioned.

The most extreme expressions of childhood malnutrition are, of course, kwashiorkor and marasmus, the diseases of protein and protein/calorie deficiency found in Third World starvation. At a health center in the Rio Grande Valley of Texas a nutritionist with extensive international experience reported of observing these diseases of starvation among her own patients. The director of an Indian Health Care Program reported deaths from kwashiorkor among her people when she spoke before the task force hearing there.

These reports shatter our preconceived notions of what can and cannot happen in the United States. As for maternal nutrition our observations of inadequate diet during pregnancy similarly by local observation.

The WIC Program in New Mexico reported to the task force that 18 percent of pregnant women entering their program were underweight. A Minneapolis study found that 33 percent of pregnant women applying to their program, a sample reflective of the poor population of the city, were anemic. Some local data reflected this poor maternal nutrition when the task force visited Houston, where health officials provided us with birth outcome data for particular neighborhoods. In 1982 Houston's infant mortality rate ranged from 23 per 1,000 live births in a poor section of that city to less than 10 per 1,000 live births in a more affluent area.

The same pattern emerges in other big cities. New York's infant mortality rate ranges from 25.6 per 1,000 live births in central Harlem to 7.5 per 1,000 live births a few blocks away in the city's East Side.

In Boston, close examinations of neighborhood specific data show that in the poorest sections of the city infant mortality rate rose 46 percent from 1981 to 1982. Comparable information is available on low-birth weight, the condition underlying most of the causes of infant mortality.

In Nashville, TN, we were told that from 1981 to 1982, and then from 1982 to 1983, low-birth weight rates rose for both blacks and whites in the poor areas of the town. And while low-birth weight infants comprise 8.5 percent of all births in the county of which Nashville is a part in 1981, they comprised 12.9 percent of white births and 14.4 percent of black births in Nashville's public hospitals where most of the poor infants are delivered.

Other local reports further confirmed by national data were presented to us as we traveled around the country. The CDC data which has been mentioned earlier, based on records from 32 States on children from birth to 4 years who were enrolled in federally-funded programs, found a consistent increase in the prevalence of height for age below the 5 percentile, while by age 4 the prevalence was as high as 16 percent for Hispanic and native American children.

A recent CDC report on infant mortality shows that the downward trend which has characterized the U.S. infant mortality rate over the past 20 years has now leveled off. We are no longer on the path set down by the Surgeon General in 1979 to bring the U.S. rates into line with rates of other comparably wealthy nations in this critical indicator of infant and child health. The CDC study done at the request of a congressional committee showed that infant mortality fell from 10.9 per 1,000 live births in 1983 overall, to only 10.6 per 1,000 live births in 1984, which is certainly a negligible decline. Meanwhile, post-neonatal mortality actually rose during that period.

What I have told you just now has to do with my excursions with various committees looking at problems of hunger and malnutrition. However, my firsthand experience with nutritional problems of the poor is not limited to the few weeks spent during these studies. Mine is an everyday experience as we attempt to provide a wide range of health and health-related services to more than 26,000 poor people in the city of Jackson and surrounding Hinds County, including WIC certification and nutritional counseling to 5,000 poor pregnant women, infants, and children.

I have mentioned the field studies in 1968 and 1977. Those conditions described among children in 1968 had vastly improved in 1977, and it cannot be denied that the overriding factors contributing to these improvements were the combined benefits of the various food assistance programs put into place during the interim.

This is not to say or to imply that poverty-related hunger and malnutrition had been wiped out. It is still widespread among the poor with children and the elderly being particularly affected. For instance, as the number of individuals in poverty grows, the problems are sure to deteriorate, and without appropriate intervention we may soon find ourselves back to the conditions of 1967, and the numbers adversely affected in my State of Mississippi would be high.

For instance, there are 425,000 children participating in the School Lunch Program in the State. Of these 290,000 or 68 percent receive their meals free or at reduced prices, which indicates they are from poor families. When we consider that poor children obtain from one-third to one-half of their daily nutrients from school lunch, we can readily see the potential negative impact on those who may no longer be able to afford these meals due to cutbacks and changes in eligibility requirements.

Some might argue that the difference will be made up at home. This is just not the case. From my own firsthand experience we find that 70 percent of the 5,000 individuals, mostly children, which we certify annually for the WIC Program, have home dietary histories deficient in vitamin A and vitamin C; 45 percent are deficient in iron; 30 percent in protein. And those children 3 to 5 years of age, 15 percent are deficient in calcium. And as we interviewed family after family recently and looked in their refrigerators and on their pantry shelves toward the end of the month, we could easily determine the cause: just not enough food.

Members of the panel, in closing I ask that you give serious consideration to immediately increasing the amount of funds for the various nutrition support programs, all of them, Food Stamps, WIC, School Breakfast, School Lunch. I say you should increase them all because it is obvious to many of us that one meal, or even a portion of a meal, can make a difference between a child who is healthy, happy, capable of learning and developing into a productive citizen, and one who is hungry and malnourished, apathetic, and vulnerable to sickness and disease, and possibly a shortened life span.

Members of the panel, I thank you very much again for giving me this opportunity to speak before you.

RESPONSES TO QUESTIONS FOR AARON SHIRLEY, M.D.

QUESTIONS SUBMITTED BY HON. MICKEY LELAND

Question. Can you explain the physiological and psychological consequences for children who adapt to inadequate food intake?

Answer. Even short-term deprivation of food can lead to changes in the behavior of a child. The first defense of a child's body to inadequate nutrition is to cut back on activity, thus preserving calories for growth and other physiological functions. While this adaptation is biologically useful, it means that the malnourished child is deprived of cognitive and social experiences that are crucial to development.

Inadequate food intake over a prolonged period leads to growth retardation. Again, the body adjusts to deprivation by curtailing less crucial functions in the interest of survival. First weight gain shows down and then growth in height decelerates.

Depending on the severity of malnutrition, the deprived child may be at increased risk of infection, vulnerable to both more frequent illness and to more serious episodes when illness occurs.

Specific micronutrient deficiencies may effect even children who receive adequate calories and protein. The most common deficiency disease we encounter is anemia, due to lack of iron in the diet. In addition to symptoms directly associated with specific lacks, micronutrient deficiencies are also linked to increased susceptibility to environmental toxins, such as lead.

Psychological implications of inadequate nutrition are complex. First, as discussed above, the physiological response to inadequate diet has a psychosocial aspect. Such outcomes as anxiety, dependency and hostility have been observed in malnourished children. In addition, the child who is poorly nourished is being given a very powerful message about his or her relationship to the social environment. Feelings about self-worth and about the responsiveness of the adult world are affected by the expe-

rience of being ill fed. The long-term consequences of this emotional assault depend on the age and other circumstances of the child but the experience is universally destructive.

In a sense, it is inappropriate to use the word "adapt," to characterize the response of a child to inadequate nutrition. Certainly there are physiological changes which occur to promote survival in an inadequate environment. But these changes are not without cost to the child. The only adequate adaptive strategy is a social one: the provision of adequate food to permit children to develop into healthy adults.

Question. Malnutrition is probably the most underdiagnosed health problem. To what do you attribute this oversight, and what are your suggestions on diagnosing malnutrition.

Answer. There are objective difficulties in diagnosing early malnutrition. The signs of malnutrition may be extremely subtle. Such behavioral changes as withdrawal, lethargy or anxiety may reflect a range of physical or emotional problems and only a clinician attuned to look for malnutrition will perform blood tests and gather the kind of background information on the patient needed to link these early indicators to diet.

Furthermore, malnutrition can and does interact with and mimic effects of other aspects of poverty which effect health. For example, increased exposure to both infection and environmental toxins are common in poor communities. Either of these risk factors may complicate the identification of hunger as a causal factor in illness. Again, only a clinician who is explicitly prepared to look for malnutrition will recognize its effects.

Fundamentally, the recognition of malnutrition in children is a reflection of the preparation of clinicians. Physicians and other medical providers in this country are not prepared to use the simple tools available for identification of children who are poorly nourished. Growth grids, proper measuring techniques and simple blood tests can identify poorly nourished children. These techniques are underused here because medical training assumes that malnutrition is unlikely and/or too uninteresting to merit much attention.

Even where suggestive medical evidence is recognized, medical care providers may shy away from delving into its causes. Many providers, socialized to believe that inadequate nutrition is entirely a reflection of family pathology in our "affluent" society, feel uncomfortable discussing matters of diet with parents, as if they are automatically making an accusation when the topic arises.

In both the failure to identify malnutrition, and the tendency to avoid exploration of its causes, physicians and other clinicians reflect the biases and prejudices of society as a whole. The public is generally unaware of the prevalence of malnutrition among American children. Where it exists, the prevailing wisdom is that families are to blame.

Better diagnosis requires first that physicians be trained to use and pay careful attention to the available diagnostic tools. Further, it requires that physicians and other medical providers be trained to elicit information about family circumstances in a nonjudgemental way, so that details of diet can be understood when the medical evidence does suggest malnutrition.

Each of these skills is more likely to be incorporated into medical training in a social atmosphere of concern for and awareness of the nutritional needs of the poor. We cannot expect doctors to look for malnutrition if the broader society tells them no one in America goes hungry. We cannot expect them to take it seriously if they are socialized to believe that its victims are in some way to blame for their circumstances. If middle class American children were afflicted by a condition as widespread as malnutrition; if this condition had the potential to cause the harm that malnutrition can cause, we would expect a national campaign for its diagnosis and eradication. We must make the same kind of social commitment to eradicate malnutrition.

[The prepared statement of Dr. Shirley appears at the conclusion of the hearing, see p. 86.]

Chairman LELAND. Thank you, Dr. Shirley. Dr. Christoffel.

STATEMENT OF KATHERINE K. CHRISTOFFEL, M.D., ASSISTANT PROFESSOR OF PEDIATRICS, AND COMMUNITY HEALTH AND PREVENTIVE MEDICINE, NORTHWESTERN UNIVERSITY MEDICAL SCHOOL, CHICAGO, IL

Dr. CHRISTOFFEL. Mr. Chairman and committee members, thank you for this opportunity to come here. I am a believer that a picture is worth a thousand words. I am going to show you some pictures of some of the children we see. Can we have the lights down, please?

[Slide 1.]

This happy, well-nourished baby was photographed after successful treatment for a serious medical problem.

[Slide 2.]

Here he is pictured before treatment for severe nonorganic failure to thrive. Nonorganic failure to thrive is a disturbance in growth without any demonstrable medical cause, and is familiar to all pediatricians in the United States. Often called environmental deprivation, it has been associated with a range of feeding problems, from errors in formula preparation to deliberate neglect.

The diagnosis of failure to thrive, or FTT, is based on body measurements which deviate from normal. For example, extremely low weight compared to normal children of the same sex and age. The assessment that failure to thrive is nonorganic is based on absence of explanatory medical conditions and on resumption of normal growth in response to adequate feeding.

Despite these definitions, and although we can plainly see the severe wasting in this infant, it is not traditional to assess or describe these infants in nutritional terms. As a result, children with severe FTT are not commonly considered to be examples of malnutrition. The plight of these children has therefore not drawn the attention, investigation, or corrective action that any evidence of malnutrition in America should receive.

I would like to show you three more infants with the same condition, whose histories are described in the attachment to my prepared testimony.

[Slide 3.]

This is patient No. 1.

[Slide 4.]

This is patient No. 2, in the intensive care unit.

[Slide 5.]

This is patient No. 3.

[Slide 6.]

Motivated by cases like these, my colleagues and I did a retrospective study of cases of nonorganic failure to thrive at our hospital over a 4½-year period.

[Slide 7.]

For nutritional descriptions we used the Wellcome Trust definitions of protein/calorie malnutrition, which are widely used around the world.

[Slide 8.]

We were unfortunately able to document that there had been at least 16 cases of severe malnutrition in children 18 months old or

younger. This is a minimum estimate of the number of such cases seen at our institution.

The time pattern of occurrence suggested that these cases were increasing in number during the study period. However, we do not know how many such cases were seen elsewhere. Such cases do not appear, as we have heard, in nutrition surveillance statistics from WIC and public health clinics because the children who become so severely affected have generally not received the services offered by such clinics.

The obvious question is, why do these children not have enough food? In the cases whose photos I have shown and in the series of 16 cases, it usually remained unclear. The families had not recently arrived in the area and all spoke English. Since most were on public aid and had a number of children, the existence of these families and their generally needy circumstances were surely known to a variety of agencies; yet, most were not enrolled in WIC. This suggests to us that WIC is sometimes inaccessible to children in great need.

Mothers often tell us that they face bureaucratic hurdles which delay their receiving food. They report being turned away from WIC if they arrive at the wrong time, at the wrong office, or without each of a variety of required forms. This may make it particularly difficult for those most in need. For example, residents in a condemned building, like the family of patient No. 2, generally cannot provide acceptable proof of address because they have no rent receipts. Rescheduled appointments after being turned away for such reasons may occur too late to prevent babies from becoming ill. These mothers and occasional candid WIC workers convey the impression that because WIC resources are not sufficient to provide for all eligible families, bureaucratic requirements are used as a means of rationing.

Clearly, this is a complex matter. It is widely recognized that severe family dysfunction can result in a child's not being fed, and such a child will thrive in foster care. It is less widely acknowledged that obstacles to a family's obtaining food can also result in a child not being fed. A child from a functioning family whose social position prevents access to food will thrive in a better situated foster home. In most cases it is probably the interaction of difficulty of access to critical services and some degree of family problems that result in severe malnutrition. It is our custom to attribute such problems in severe cases of FTT to the family's neglect, but it is necessary to recognize that dire consequences may result from a lesser degree of neglect when food and social services are difficult to obtain.

Making food easily accessible to families in need is a venerable goal of WIC and related programs. Cases like those presented indicate that that goal is not universally achieved. Stated more baldly, nutritional assessment and description of children with severe non-organic FTT makes it clear that they are, in fact, starving. Their malnutrition makes them ill and endangers their futures.

The existence of one starving child in America is unacceptable in itself and is a sentinel indicating that more are suffering to a lesser degree. A way must be developed, and quickly, to assess the prevalence and causes of this problem.

I urge that the Congress mandate that malnutrition become a reportable condition along with polio and other preventable severe medical conditions.

Finally, should not supplemental programs such as WIC and food stamps be restructured to assure that all children in need receive adequate food, even if their parents have problems which make it difficult to comply with numerous rules and regulations? In other words, ought not the safety to be easier to use?

Thank you.

RESPONSES TO QUESTIONS FOR KATHERINE K. CHRISTOFFEL, M.D.

QUESTIONS SUBMITTED BY HON. MICKEY LE'AND

Question. How can we improve the national system of reporting deaths and diseases to monitor the incidence of malnutrition?

Follow-up. How would you improve the training of health professionals to assure the reporting of malnutrition when it is a direct cause of disease?

Answer. These two items are interrelated, as mandated reporting of malnutrition would surely help to increase awareness and continuing education about this problem. Improved physician training and continuing education about malnutrition can also be encouraged by increasing numbers of pertinent, that is, clinical, publications and meetings. These, in turn, can be encouraged by making available research and education moneys earmarked for work in this area. Without such focus, development of this important area will be a slow process.

The critical step, then, is development of a system for reporting of malnutrition, as a disease—it is already reportable as possible neglect to State child abuse reporting agencies. Only through such a system will the scope of the problem be documented and its correctable causes identified. Such a system will also permit monitoring of changes in the scope of malnutrition with changes in various factors—for example, WIC funding and percent of eligibles covered.

The following are several potential components in development of a public health reporting system for childhood malnutrition.

(1) The definitions to be used must be agreed upon. It would be best if this occurred at a national level, to permit interstate comparisons. A panel should be convened to settle on a definition. A variety of definition schemes in use in the Third World are available and applicable here. The panel might also consider such a simple definition as: Any one or more of the following: weight for height less than the 5th percentile—NCHS standards, triceps skin folds less than the 5th percentile—standards to be agreed upon, or albumin <3 mg percent with no medical cause.

(2) Communication should be encouraged and facilitated among organizations and agencies which can contribute to the goal of establishing a coordinated nationwide reporting system for malnutrition, including at least your committee, the Centers for Disease Control and the Association of State and Territorial Health Officers, ASTHO.

(3) States will need to be encouraged to educate and motivate potential reporters. Encouragement might take the form of supplemental funds, for example, WIC, or services, for example, commodities, for residents of States with such a reporting plan in operation. Criteria for having a plan in operation might start out rather encompassing and become more precise over 1 to 2 years.

(4) Individual States which evidence interest in developing pilot programs should be encouraged by their congressional representatives and CDC.

(5) Adequate support is necessary to establish and maintain State and Federal reporting mechanisms and to provide the ability to investigate reported cases concerning circumstances of reported cases and preventive implications, as would be done for—the now far less numerous—cases of polio.

(6) Experience in other areas suggests that hospitals could be encouraged to develop nutrition surveillance and to report malnutrition if these are made conditions for participation in one or more Federal reimbursement programs.

I know that you recognize that counting cases of malnutrition is not enough. Indeed, it is difficult to judge whether not counting them is less ethical than would be counting them without provision for short- and long-term remedies. But clearly we cannot address problems we do not recognize, and so a necessary step toward eradicating starvation is documenting it. I trust these comments will serve to open an ongoing dialog on how to proceed with these urgent tasks.

[The prepared statement of Dr. Christoffel appears at the conclusion of the hearing, see p. 89.]

Chairman LELAND. Thank you, Doctor. Dr. Dietz.

STATEMENT OF WILLIAM H. DIETZ, JR., M.D., ASSISTANT PROFESSOR OF PEDIATRICS, TUFTS UNIVERSITY SCHOOL OF MEDICINE, AND DIRECTOR OF CLINICAL NUTRITION, DEPARTMENT OF PEDIATRICS, NEW ENGLAND MEDICAL CENTER, BOSTON, MA

Dr. DIETZ. Mr. Chairman, Committee and Subcommittee members. I would like to precede my formal statement with two comments.

First, I have been struck by the sensitivity of this committee and the high level of understanding you already have of the physiologic consequences of this problem, which may make many of my comments redundant. You are a highly educated group.

Second, the term failure to thrive has been used here several times and I would like to emphasize that what we are talking about is undernutrition, that failure to thrive is the eponym that we give this syndrome in the United States because we cannot admit that undernutrition exists. Pure and simple, failure to thrive, nonorganic if you will, is undernutrition.

I plan to discuss with you now the effects of maternal nutrition on infant birth weight and the effects of undernutrition in infants and children on growth, behavior, cognitive development, susceptibility to infection, and mortality.

As you already know, undernutrition in children may begin with undernutrition of the mother. During the Dutch famine of World War II it became apparent that maternal undernutrition produced an increased prevalence of low birth weight and premature infants. Although undernutrition in the United States is not as prevalent or severe as that observed during famines, even here the nutritional status of the mother has a major impact on the birth weight of the infant.

Numerous studies have shown that prepregnant weight and weight gained during pregnancy are positively correlated with birth weight. The pregnant mother can only support optimal growth of her fetus if her own nutritional status is adequate.

The consequences of low-birth weight and prematurity are often abnormal physical and intellectual development and learning disabilities. Undernutrition in infants and children characteristically progresses from acute to chronic. The earliest response to undernutrition is a reduction in activity which allows the individual to preserve energy for growth and other vital functions. If undernutrition persists, the rate of weight gain is reduced. Later in the course the rate of growth in height is also reduced. Therefore, early or acute undernutrition is accompanied by a deficit in the weight expected for a child's height. Chronic or longstanding undernutrition is characterized by a deficit in both weight and height, but weight may be appropriate for the reduced height. Simply stated, acutely malnourished children are thin, and chronically malnourished children are short but appear normally proportioned.

These alterations in growth provide the justification for the use of weight for age, height for age, and weight for height as indicators of nutritional status. However, in terms of morbidity, alterations in functions other than growth are the more important effects of undernutrition.

As I have already told you, children with mild to moderate undernutrition display reduced activity. They also show excessive irritability, a low tolerance of frustration, and are unresponsive to social stimulation. These characteristics have two results. First, they impair the ability of affected infants or children to elicit effective and supportive stimulation from their parents. Second, they stifle efforts to stimulate or refeed affected patients.

As a result, undernutrition persists or deteriorates further. The behavioral consequences of undernutrition emphasize that therapy must include both nutritional and psychosocial interventions. The longer term implications of such disordered social interactions is that they inhibit the development of interpersonal skills and reduce the likelihood of social and emotional competence in later childhood and adolescence.

Cognitive development is also affected by undernutrition. In poor populations children with chronic undernutrition do poorly in school and attain lower scores on standardized achievement tests, especially those of language ability. In the United States these psychosocial sequelae of mild to moderate undernutrition help to perpetuate the cycle of poverty and may contribute to undernutrition in future generations.

As I mentioned earlier, undernutrition may also be accompanied by a reduction in the body's resistance to infection. Infections frequently cause a loss of appetite, increased energy requirements, and increased nutrient losses, all of which promote a further deterioration in nutritional status. Therefore, a vicious cycle is established in which undernutrition predisposes to infection, which contributes further to undernutrition, and ultimately to mortality.

Several studies conducted in the developing world suggest that the frequency and severity of illnesses such as diarrhea are directly related to the severity of undernutrition. Although the degree of undernutrition may be more severe in the Third World than that in the United States, such studies have also demonstrated that the severity and duration of several different infections are increased even in mild to moderate undernutrition. Studies of these sequelae in the United States have not been performed, but despite the absence of reliable data regarding the morbidity of mild to moderate undernutrition, the alterations in protein and energy reserves that accompany undernutrition could be expected to pose a greater hazard under several different conditions. Based on the experience in adults, moderate malnutrition in children will increase the frequency of infection or death following major surgery or trauma, both of which impose a significant stress on nutrient reserves. Moderate malnutrition complicates routine patient management and increases both the duration and costs of hospitalization.

Malnutrition in the Third World is associated with a high rate of infant mortality. Until recently I would have said there was little evidence that mild to moderate undernutrition in the pediatric population of the United States influenced infant mortality. However,

risers in the rate of infant mortality in Boston and elsewhere have recently been demonstrated. Such increases have coincided with the increases in the prevalence of undernutrition. Therefore, we cannot complacently dismiss the possibility that undernutrition increases infant mortality rates in the United States, particularly among poor populations, just as it does in the developing world.

In summary, undernutrition clearly exists within our population. It is a cross-generational problem in which the nutritional status of the mother is a critical determinant of the nutritional status of the infant at birth. Although alterations in growth are the means used to identify and describe the severity of undernutrition, more important consequences are the effects of undernutrition on activity, learning, and the severity and duration of infection. The effects of undernutrition on cognitive development suggest that our therapeutic efforts must include both nutritional and psychosocial support.

The persistence of undernutrition in our population emphasizes the need for continued support of those nutritional programs specifically directed toward the poor.

Thank you for this opportunity.

RESPONSES TO QUESTIONS FOR WILLIAM H. DIETZ, JR., M.D.

QUESTIONS SUBMITTED BY HON. MICKEY LELAND

Question. Would you expand upon the hidden detrimental health effects which we see only as growth stunting?

Answer. Growth stunting represents an adaptive response to lack of sufficient nutrient intake. The net effect of reduced growth is preservation of energy for more vital functions. Evidence from the United States and third world now suggest that more subtle effects of undernutrition precede stunting. These include reductions in activity in a variety of domains, such as gross motor activity, fine motor activity, and verbalization. These alterations impair the ability of the infant to interact with parents and other individuals. Good data indicate that undernourished children subsequently receive less stimulation and attention from parents and siblings. Cognitive development is therefore impaired, not only as a result of the reduction in energy available for discretionary activities, but because the ability of the infant to elicit stimulation and learn experimentally from its environment is compromised.

The distinction between the effects of these alterations, and the effects of poverty and a deprived environment on subsequent development is difficult to achieve with precision. Nonetheless, impaired performance on tests of intellectual function, and an increased frequency of deficits in fine motor skills can be demonstrated in long-term follow-up studies of children and adolescents undernourished in infancy and early childhood.

These alterations imply that children who are undernourished in infancy and early childhood may be unable to escape the culture of poverty, because the qualities of behavior that are affected are precisely those necessary to cope with adverse environmental conditions. As Dr. Mayer said at your hearings, these same effects may also compromise the qualities that will be required to provide our Nation with a strong military force in the next several decades.

Question. How would you suggest we implement a national system of reporting cases of second- and third-degree undernutrition?

Answer. Surprisingly, physicians and other health care personnel in the third world are probably better equipped to assess undernutrition than their counterparts in the United States. Therefore, any reporting system must necessarily be preceded by a vigorous educational program for medical students, house staff, nurse practitioners, and pediatricians to improve the nutritional assessment of affected patients. This may require a national initiative, supported by funding specifically designed to support teaching of nutrition and nutritional assessment in medical schools.

Second, an increased sensitivity to the problem will enhance awareness of the prevalence of this condition in our population. Your committee has done an excel-

lent job in this area. I am fully committed to do what I can to assist you to continue your vital activities.

Mandated reporting of severe cases will help to establish the magnitude of this problem. Reliable criteria based on the anthropometric indices of weight for age, height for age, and weight for height can easily be established, based on third world experience. The more difficult problem is to facilitate case detection. Undernutrition, euphemistically known as failure to thrive, account for 1 to 3 percent of all pediatric hospital admissions and could easily form the basis of a reporting system. Nonorganic failure to thrive, accounts for approximately half of these cases. However, the few community surveys that have been made indicated that undernutrition may affect 10 to 15 percent of the pediatric population. Detection and reporting of these cases may be more difficult, insofar as the families of such children may have limited access to medical facilities, or may utilize such facilities less frequently than other families.

A reporting system for cases of undernutrition is essential. A hospital or health center based system will provide prevalence data on the most severely affected population. The CDC appears the logical facility to which such cases should be referred. However, some additional mechanism, that should take the form of community based surveillance, will be required to enable a firmer estimate of the prevalence of this disorder within the population.

[The prepared statement of Dr. Dietz appears at the conclusion of the hearing, see p. 91.]

Chairman LELAND. Thank you very much. I am very happy to welcome the next witness who is a fellow citizen of Houston, Dr. Pollitt.

STATEMENT OF ERNESTO POLLITT, PH.D., PROFESSOR OF NUTRITION AND BEHAVIORAL SCIENCE, SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF TEXAS AT HOUSTON, HOUSTON, TX

Mr. POLLITT. Thank you, Mr. Chairman, and thank you, members of the committee.

Let me introduce my comments by saying I sort of have a feeling of *deja vu*. I was, 10 or 12 years ago, presented testimony in the McGovern committee and some of the things that I will say today are not very different from what were said at that time except that we can now say them in a much more definitive way than when we said them 10 years ago.

I was specifically requested to address the issue of the effects of iron deficiency and anemia, and of fasting, or not taking breakfast, on the children's learning potential.

Let me begin by saying that three major national nutritional surveys, the Preschool Nutrition Survey, the Ten-State Nutrition Survey, and the first National Health and Nutrition Examination Survey, conducted between 1968 to 1974, established iron deficiency and anemia among infants and young children as a serious public health problem in the United States. None of the three surveys, however, included comprehensive assessments of the iron status of the subjects examined.

In contrast, the second National Health and Nutrition Examination Survey or NHANES II conducted from 1976 to 1980 on a sample representative of the U.S. population make fairly extensive assessments of the iron status of the subjects under study. Recently completed estimates of prevalence by the Life Science Committee of the Federation of American Societies for Experimental Biology, using the data from NHANES II, have focused specifically on impaired iron status rather than on the more global hematological problem of anemia. Three statistical approaches were used to esti-

mate prevalence rates which ranged from 9 to 9.5 percent for the 1 to 2-year olds, so it's about 1 of every 10 infants are iron deficient; from 3.5 to about 5½ for the 3- to 4-year old, and from 3 to about 4.5 for the 5- to 10-year-old children.

Comparisons between previous estimates—in other words, the three first surveys conducted in the early 1970's and more recent ones—that is, NHANES II—suggest that the prevalence of iron deficiency and anemia have declined from the period of the late 1960's and early 1970's to the late 1970's.

More recent data, however, that is, from 1982 from the Pediatric Nutrition Survey from the Center for Disease Control suggest that among low-income children the prevalence of low hemoglobin, which is indicative of anemia, is higher than the estimates derived from NHANES II. Among white and black 2 to 5-year-olds, the number of cases with low hemoglobin were 6 and 12 percent. Within the 6-year-old group the respective estimates were 5 to 11 percent. Epidemiological information from the CDC pediatric nutrition surveillance, however, lacks the rigor of the NHANES II data.

Even using the most auspicious epidemiological estimates, the conclusion from this information, which is now a massive amount of information that we have, must be that infants up to 2 years of age are particularly at risk of developing iron deficiency anemia. This is important in light of what I am going to say later on, because during this period of time the brain growth achieves its maximum growth velocity during the postnatal period.

During this age period iron deficiency is generally related to a dietary intake inadequate to meet increased iron requirements. Moreover, the recent data from the nutritional surveillance of the Center for Disease Control suggests that in low income preschool and school age children the prevalence of low hemoglobin values is higher than the estimates made in the late 1970s, which were based on a representative sample of the U.S. population.

Now, specifically to the functional consequences. A majority of the results from relevant experimental studies conducted in the United States, in Israel, in Guatemala, in Indonesia, and Egypt in the last decade indicate that iron deficiency with and without anemia interferes with cognitive functioning. Among school age children iron deficiency might be an obstacle to school achievement. It is important to emphasize, and here is the difference between what I say now and what I said perhaps 10 years ago, that experimental study designs have controlled for related effects of socioeconomic factors as well as of possible related illnesses and other nutritional deficiencies and have confirmed that the cognitive deficits observed among iron-deficient children are due to this particular nutrient deficit and are not mediated by other confounding factors.

Specifically, iron-deficient infants obtain lower scores than iron-replete infants in scales of mental development. Intramuscular administration of age-appropriate dosages of iron to the iron-deficient infants results in significant improvements in the developmental scale scores. Among preschool children iron deficiency has been associated with deficits in attention and in learning new concepts in problem solving situations.

In these cases, again, the iron-therapeutic intervention has clear salutary effects. School children with iron deficiency have also obtained lower educational achievement test scores than iron replete subjects. Following iron repletion their achievement scores increased significantly above those of iron-deficient children treated with a placebo. The significance of these findings should be obvious given that the scholastic progress of the iron-deficient child is in jeopardy.

Let me clarify, however, that the biological reasons for the cognitive deficits observed in the iron deficient subjects are unknown. Iron is an important cofactor in various brain enzymes and iron depletion might thus result in alterations in brain neurochemistry. Alternatively iron deficiency may have systemic effects which reduce the level of alertness of the organism and therefore may have an adverse influence on attention.

In conclusion, although there is still much to learn about the functional consequences of iron deficiency, the available evidence clearly shows that insofar as behavior is concerned iron deficiency is detrimental to a child's intellectual development.

I now turn to the second issue of my testimony, the aspects of fasting. Recent investigation of the cognitive effects of skipping breakfast in school-age children provide experimental data relevant to the educational benefits of the school feeding program in the United States. An evaluation of the national School Feeding Program, published in 1984 under the auspices of the Department of Agriculture, estimated that 3 million children in the United States who now skip breakfast would not do so if the breakfast program were available to them. An 18-to-20-hour overnight fast has adverse influence on the child's performance in problem-solving situations which tap abilities invoked in the classroom setting.

This decrement in performance has been associated to glucose and insulin changes resulting from the fasting condition. These biochemical changes are not indicative of deficits in the utilization of brain fuel but they do suggest a physiological basis for this transient intellectual deficit. These recent experimental data are in keeping with previous reports based on weaker study designs which had shown that consuming breakfast may enhance a child's performance during the morning in reading and in the solution of arithmetic problems.

I think that we do have now evidence to conclude that the school feeding programs in the United States have significant educational benefits.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. Pollitt appears at the conclusion of the hearing, see p. 92.]

Chairman LELAND. Thank all of you. Dr. Shirley, you participated in hunger investigations conducted in 1967, 1979, and 1984. Was there a particular trend relative to the nutritional status of children during the periods that you conducted these investigations?

Dr. SHIRLEY. Yes; the original study in 1967 or 1968, we found widespread, overt hunger, children on the verge of starvation in many instances and places that we visited.

We went to the same places 10 years later, visited the same neighborhoods, and in many instances we saw individuals in the

same families. The neighborhoods were just as rundown, the houses were just as bad, people were just as poor, but the level of nutrition of the children had improved vastly. And this was extremely encouraging to us, and it let us know that the problem of malnutrition itself was being addressed even though the problems of poverty were not.

Recently, as we visited some of the areas again, we were seeing—and the thing that is most disturbing to me is having been personally involved in the first two visits—that there were indications that we were beginning to slide back again.

Chairman LELAND. Would you describe the maladies you see in your practice which you would directly relate to malnutrition and explain how you describe the malnutrition factor in your overall diagnosis?

Dr. SHIRLEY. We see a higher percentage of infectious diseases among the youngsters who, as we get them in initially, and as we screen them routinely for the hemoglobin level, the youngsters who are in that population group where we have a high prevalence of anemia are the same youngsters who have repeated attacks of infectious diseases such as middle ear infections, and diarrhea, and respiratory tract infections, and we think there is a correlation between the fact that they are malnourished and the fact that they have frequent appearances of these infections.

Chairman LELAND. Malnutrition is probably the most underdiagnosed health problem. Why do you think that is true?

Dr. SHIRLEY. I think if individuals who are in a health provider who is not acutely aware of the potential of the existence of malnutrition, I think our training in our medical schools is geared more toward exciting-type exotic infections and diagnoses and not to the nuts-and-bolts everyday problems that you see in a practice such as the one that I am in. And I think that many of the recently trained physicians miss an opportunity to encounter populations in a setting other than in the training facility, not in the community where they have a chance to see where the youngsters live and the types of conditions that they live under.

Chairman LELAND. Thank you. Dr. Christoffel, you identified 16 cases of severe protein/calorie deficiency with symptoms of marasmus and kwashiorkor, diseases usually found in less-developed countries. How many cases do you believe are undiagnosed because physicians in this country are not familiar with the symptoms?

Dr. CHRISTOFFEL. They are familiar with the symptoms. They are not familiar with calling the condition malnutrition. Every pediatrician who has been trained in this country—as well as elsewhere—has treated children with severe failure to thrive; every one of them. But we are not accustomed to describing them in nutritional terms.

Further, nobody counts them. I wish I could give you a good estimate of the number of cases of severe malnutrition—or third-degree malnutrition or whatever we want to call it. We are only one hospital among approximately 80 in Chicago. Now, we get some of the sicker children, but so do several other large hospitals. We retrieved our cases purely by pulling medical record diagnoses, ICD codes, and if someone didn't write down malnutrition on the

chart we would have no way of pulling it, so we know that this is an underestimate, perhaps a substantial underestimate.

I would guess that there are at least dozens of cases in Chicago every year, but that is a guess, and it is one of the reasons for my suggestion that this become a reportable condition. It is preventable, it has serious sequelae, and nobody knows how common it is. We do not call it by its rightful name, we do not teach our trainees to recognize it, and therefore there is no evidence. Well, we need to collect the evidence.

Chairman LELAND. In the cases of marasmus and kwashiorkor, to what degree are the physical and mental effects reversible?

Dr. CHRISTOFFEL. It is hard to say. There is some suggestion from some of the Third World literature, as I read it, that if even very severe malnutrition is caught early enough and vigorously treated, that at least some of those children can do very well. Certainly the later it is caught and the less vigor with which it is treated, the less reason there is for optimism. I think there is no question but that some of the children suffer permanent sequelae, but how many I really cannot say. We do not find out who they are and treat them vigorously and do followup studies, controlling for nutritional status. I emphasize this again: there are numerous follow-up studies published of children with failure to thrive which report their psychosocial and learning problems years down the road, and that is important information. But they are not described nutritionally, so that the series include some children who were a little bit malnourished and some children who were severely malnourished. Now, which are the ones who are having trouble, and to what extent their environment and to what extent are their problems present because their brains were starved? I do not think we know.

Chairman LELAND. As a physician, are you routinely aware of the family's participation in the food assistance programs such as Food Stamps or WIC?

Dr. CHRISTOFFEL. I am more aware than I used to be and more aware than some of my colleagues who have not been used to describing these children in these terms. As I showed on the slides about our 16 cases, we were able to ascertain from the record—and from peoples' memories—WIC status on only 13 of the 16, I am embarrassed to say. So that we have not uniformly collected that information. But of those 13, only 3 were on WIC, so there is certainly a problem.

Chairman LELAND. Thank you. I will come back to the two other gentlemen, and yield to Mrs. Roukema at this time.

Mrs. ROUKEMA. At this point, Dr. Pollitt, you referred to the nutritional problems of fasting, and we are getting to that position ourselves now, having missed lunch. But let me thank you, the other doctors who are here, and all of your fine and very scholarly presentations that describe the problem. I have no doubt that you have described a genuine medical problem among children and the consequences that nutritional deficiencies have on their learning abilities and physiological development. We shall certainly take this information into account as we look forward to possible new programs.

Dr. Shirley, it is a particular privilege to see you again, because I know of your dedication to your patients.

Before coming back to Dr. Shirley with a specific question, I would really like to question Dr. Christoffel because I think, in the context that the Hunger Committee has been operating, your statements referring to the cases that you have documented might be somewhat misunderstood. I would like to ask a question and make a statement at the same time.

I would hope that you have not, in an unintended way, left the impression that there were no food assistance programs available to these families and, therefore, the problem was food assistance rather than what is more likely, sociopsychological problems of the parents involved. In New Jersey, these cases would be called child abuse and would be handed over to the Division of Youth and Family Services. I think we have to be careful here in the context in which not you as a doctor deal but rather the context in which the Hunger Committee is conducting its investigations.

We are intent upon looking at the nutrition programs, food stamps, WIC, et cetera. I would question whether any great number of cases, with few exceptions, could be documented as directly attributable either through lack of money, lack of AFDC support, food stamp, or WIC, or any combination of food assistance programs. It looked to me as though those babies were suffering from child abuse. That is the obvious question. Whose fault is it?

I don't mean to say that we have the answer here, but I think it must be stated in the context of the Hunger Committee discussion.

Dr. CHRISTOFFEL. I think the impression that children, who do not get all the services which are in theory available, are suffering from parental neglect—the reason that that impression persists is that we really have only one recourse, primarily, to correct the child's situation quickly, and that is to place them in foster care. We cannot fix WIC bureaucracy quickly, but we can place them in foster care quickly. Well, if they are placed in foster care, the problem must be their home. Well, that is not a logical conclusion, although I think it is our prevalent conclusion.

If you put them in a home which is better organized, better situated, better able to work the system, they will do better even if it was not primarily the family's fault to begin with. There is no question but that this group and similar groups of children are a mixed bag, but we cannot uniformly indict the parents for having trouble working a system which is very hard to work.

Mrs. ROUKEMA. Well, in a way, I think I have made my point here, but it leads me to a question for Dr. Shirley. As I recall, Dr. Shirley, we hear more and more about the bureaucracy and the problems of getting through the system both when the Hunger Committee was in Mississippi and in the body of your more recent statements, and certainly as this committee has listened to a number of people.

Some of us on the committee have referred to the concept of one-stop shopping, so to speak. A place where assistance to the poor in all its forms, food assistance, other social welfare assistance, perhaps even housing would have similar eligibility requirements. This would help simplify the bureaucratic morass that the client faces, and I think you have spoken to this. Do you see, in your

practical experience, any feasible way that the Federal Government, working with the States at the local level, can cut through and simplify these programs through a one-stop approach? Is it feasible or is it a dream?

Dr. SHIRLEY. I think to some degree it is feasible. I might cite one example. At our place we do WIC certification and we do early period screening diagnosis and treatment for Medicaid. And we have to have separate records and separate intake efforts for both, and almost all of the youngsters are eligible for both. And it would be simple if we would have a uniform record. As part of the EPSDT procedure we do a hematocrit. As part of the WIC—

Mrs. ROUKEMA. I am sorry, you do a what?

Dr. SHIRLEY. We do a hemoglobin determination, and as part of the WIC procedure we do a hemoglobin determination. And one hemoglobin could serve both, but the bureaucracy does not let that happen. That is just one example.

The Maternal and Child Health Program, which deals with both mothers and babies, do the same procedures, provide basically the same service, but that is even a different set of rules and regulations. Those are three entities, just off the top of my head. I could see them being combined and letting one shot do it all.

Mrs. ROUKEMA. Well, if you through your experience can add to our understanding and knowledge here, I would appreciate it. It is an idea that sounds good, but I do not know how practical it is in the field. We would appreciate any further help that you or others in Mississippi could give us, because we heard considerable testimony about the bureaucratic problems, when we were there.

Dr. SHIRLEY. I will be happy to develop something.

Mrs. ROUKEMA. Thank you very much.

Chairman LELAND. Mr. Nielson.

Mr. NIELSON. Thank you, Mr. Chairman. Dr. Pollitt, when you talk about iron deficiency, is that usually from eating too little, or eating the wrong foods?

Mr. POLLITT. In infancy it is generally associated—the infant is a growing organism, and as such has a higher demand for nutrients. Generally the kinds, the types of iron deficiency that you see in infants in this country is primarily due to inadequate dietary intake.

Mr. NIELSON. Let me ask you this question. Is breakfast-skipping by children a result of the fact that the food is not available in their home or is it because the parent does not want to provide the breakfast?

Mr. POLLITT. I think that we do not have very much data except, as I said, for the recent report that was published in August of last year in the American Journal of Clinical Nutrition. This was a report from, or published under the auspices of the Department of Agriculture. There they estimate that 3 million children do not take breakfast because it is unavailable to them, either at home or in the school, but they would take it if they were going to a school that had that program.

Mr. NIELSON. In your opinion, who has the obligation to provide that child breakfast?

Mr. POLLITT. I think, sir, that from my own view, if that family does not have the means and if it is possible to provide breakfast in the school, then the school should provide it.

Mr. NIELSON. OK. Dr. Christoffel, you mentioned the 16 severe malnutrition cases, and you made a graphic presentation. What percentage of total number of children in your survey were in this category? What does that 16 represent as a percentage?

Dr. CHRISTOFFEL. You mean, what proportion of all children hospitalized or—

Mr. NIELSON. No, all the children in your survey.

Dr. CHRISTOFFEL. We were looking specifically for those so they are all the children that we culled. If you mean what proportion of all children with poor growth are this severe, it is small. I do not know the exact number, but there are dozens of children admitted every year with failure to thrive of lesser degree.

Mr. NIELSON. What about Congresswoman Roukema's comment about whether or not they are perhaps victims of child abuse in addition to malnutrition? Is that possible?

Dr. CHRISTOFFEL. Most of the cases were reported for abuse and neglect, and most of them were placed in foster care. But as I say, that does not prove the case necessarily. It means that the children were not getting what they needed and this was the only means we have of dealing with it.

In some cases I think all of us could agree that it was neglect on the family's part. In many cases we could not agree or all of us would agree that it really was not, and I think that some of the work that needs to be done is sorting out the three groups, where it is clearly the family's problem, where it is clearly the system's problem, and where it overlaps.

I have worked on child abuse teams for about a decade and have seen these patients in that and other contexts for a long time. And I do the things that you would expect me to do when I see them. But what has become clearer to me as I have looked into it further is that the families who are in difficult circumstances are there because they have problems. They do not have jobs, they do not have transportation. The father may be gone, as was discussed earlier. There are objective problems in the family. Which is at least part of why they are having so much trouble.

Well, then the requirements for getting what is offered—on paper, at least—to help them through that time often requires the very resources they do not have: the transportation, the education, et cetera. So that they are down and out, and then they need to use skills and resources they do not have to stop being down and out. It does not seem fair sometimes.

Chairman LELAND. Will the gentleman yield?

Mr. NIELSON. Yes, I wish to yield.

Chairman LELAND. Doctor, we just found out from Ted Koppel who has educated us tremendously over the past couple of years on various issues, that about 60 million adult Americans, cannot read, on an elementary level. To what extent is ignorance attributable to the problems that you showed us so very graphically on the screen?

Dr. CHRISTOFFEL. That may be part of it. I have heard that well educated people have seen all of the forms that may be necessary to get onto some of these programs and been baffled. I fill out WIC

forms rather regularly and I do not always understand them. They change. Parents tell me I have to do something, that they were told they could not get their services unless I did something; and it seems to me I just did it. Yes, it is very difficult sometimes to understand these rules and forms even when you have got the education. If you do not read well, and if you forgot something at home and do not have the carfare to go back again, it could be impossible.

Chairman LELAND. Precisely my point, if there are 60 million Americans who are illiterate, and you are saying that well educated people cannot understand necessarily the form that they have to fill out in order to qualify for the programs that are available, then we must, I suspect, look very seriously at how we are operating these programs and what we need to do to revamp them.

Dr. CHRISTOFFEL. What I have heard repeatedly from people in various settings is that if someone shows up late or on the wrong day or without a proper piece of paper or whatever, it is always interpreted as evidence of disinterest or not caring or neglect. And perhaps occasionally it is. But if we found ourselves in the same situation we would hope that the person on the other side of the counter would assume that there was some good reason why we did not make it and ask how we could be helped to do it better next time. But that is not the posture. There seems to be such a fear of giving some formula to any family that can afford it that the result, I think, is not giving formula to some families who desperately need it.

Chairman LELAND. I thank the gentleman for yielding.

Mr. NIELSON. You mentioned that the cause was inaccessibility of WIC Programs, or you suggested that. Is that based on anecdotal evidence, or is there a definitive study on how much is caused by lack of WIC Programs and how much is caused by lack of attention when they have the funds?

Dr. CHRISTOFFEL. No; I was invited to speculate on the causes. I am really not in a position to do an extensive study of it and—

Mr. NIELSON. This is based on personal experience?

Dr. CHRISTOFFEL [continuing]. I hope you will—this is what the parents tell us, and what the people who work in soup kitchens tell us, and what the social workers who take families to the WIC offices tell us. It is such a recurrent refrain, so consistent, that there has to be more than a kernel of truth to it.

But I hope that you all will look into it in a more extensive fashion. I am a doctor. I see the children when they are sick.

Mr. NIELSON. I would recommend to the Committee on Hunger that they do that, make a definitive study. I think they might have a better chance of getting the proper funding if they had some definitive study as to what proportion of these cases are actually because of lack of WIC funds, or lack of accessibility of those funds, or lack of understanding, as the chairman indicated, in learning to apply for them.

That lady that was here this morning earlier—I just came on the last end of her testimony—said that she did not know that she was eligible for WIC until sometime later and then they said, why did you not do it earlier? She apparently got on the WIC Program in

the 8 month of her pregnancy and could have gotten on it 4 months earlier had she been properly informed.

So, I would like to suggest that for the Committee on Hunger to do that. One other question. You said the existence——

Chairman LELAND. The suggestion of the gentleman is well taken and sustained.

Mr. NIELSON. Thank you. You said the existence of one starving child in America indicates that there are many more suffering to a lesser degree. On what do you base that?

Dr. CHRISTOFFEL. On several things. One is that we know that for all biological phenomena there is a bell curve, and if you are seeing one extreme it represents part of a distribution. It may not be an even distribution but there is always a distribution, which means that some group of children are next to the severe. A second kind of evidence is the finding of a recent CDC survey in drought stricken Mauritania that even in that severe context, where undernutrition is epidemic, severe malnutrition is quite rare.

Consistent with these observations, there is direct evidence from surveillance studies of a high prevalence of chronic malnutrition among impoverished U.S. children.

Mr. NIELSON. Is there some way of making malnutrition a reportable condition so people——

Dr. CHRISTOFFEL. I hope you will. I think that is exactly what needs to be done.

Mr. NIELSON. How would you propose doing that?

Dr. CHRISTOFFEL. How would I propose doing it? I have great respect for the powers of Congress, that if a regulation or law can be effected saying that this data that needs to be gathered. As I understand it right now, and I may not have all the facts, but as I have explored it, in order for a disease to become reportable on a national basis, either a majority of two-thirds or some large proportion of each of the States needs to independently decide that that will come to be. Going that route could be a lengthy process. I have asked people at the CDC and that is what they have told me.

I have talked to some people at the State level who are interested in exploring it, but it then becomes, you know, a State-by-State sort of affair.

Mrs. ROUKEMA. Will the gentleman yield?

Mr. NIELSON. I will be happy to yield.

Mrs. ROUKEMA. I would like to ask Dr. Dietz to respond to that question. From your experience; you have vast clinical as well as academic experience.

Dr. DIETZ. About how to make this a reportable disease? I think the——

Mrs. ROUKEMA. Yes, both merits of the question as well as how it can be implemented.

Dr. DIETZ. Sure. I think that the CDC, which is the organization that is responsible for identifying the prevalence of diseases nationally, would be the organization that would be the best equipped to make this a reportable disease.

I think, second, that it would be a relatively easy requirement to meet, because most pediatricians, or all pediatricians should automatically plot height and weight on growth charts when they see such children, and that is a relatively easy number to submit.

Mrs. ROUKEMA. I have two questions. One, could it be defined?

Dr. DIETZ. Yes.

Mrs. ROUKEMA. It can. Two, what would be the benefits of making it a reportable disease? In contagious diseases, obviously, we understand. This is not a contagious disease. What are the benefits of reporting?

Dr. DIETZ. The principals are the same, that surveillance of the population is why we report cases of measles or mumps so that we know what is happening.

Mrs. ROUKEMA. I thought it was contagion.

Dr. DIETZ. Well, it is, but contagion leads directly to prevention; that is, immunization programs. And understanding the level of a disease in the population is what initiates the response to that disease, and so I think there is a very important role in surveillance for undernutrition, and in fact, I think Mr. Nielson is quite correct in his concern for knowing the magnitude of the problem, because we really do not have very effective data that indicate the true prevalence of undernutrition.

Mrs. ROUKEMA. Do we have a commonly acceptable definition?

Dr. DIETZ. I would argue that we do, that the standards that are used in the Third World with respect to weight for age, height for age, and weight for height are broadly accepted definitions of changes in growth. Now, that does not necessarily imply the types of morbidity that accompany those changes in growth, but those are the widely accepted indicators for nutritional status in children.

Mrs. ROUKEMA. Thank you very much.

Chairman LELAND. If I can just follow the line of questioning, I am most concerned about what I saw on the screen and would hope that this committee would engage in further investigation as to these problems, given the limitations of this committee. I am still most concerned about what I saw, and I will tell you that as a human being, I want to see to it that this does not occur, if it is indeed preventable.

The other thing I would like to say is that we are going to leave the record open for the purpose of getting the CDC to inform us as to what it is that they can and cannot do in the matter of both defining malnutrition relative to what we saw here, and also making it a reportable disease.

I understand, that the CDC is not in every State. Mr. Nielson, I might add that President Reagan has cut the budget of the Centers for Disease Control, which disturbs me considerably because it limits the ability of the CDC to do the kind of things that we are asking them to do in this instance.

I would suggest that one of the things that we might want to do first and foremost is talk to Mr. Stockman and ask him why it is that he would want to cut such an invaluable resource which assists us in trying to make our children healthier.

Let me ask a couple of questions now, to the doctors whom I have not yet addressed.

Dr. Dietz, in your growth and nutrition pediatric clinic, do you see many infants with psychological disorders who are diagnosed as victims of child neglect?

Dr. DIETZ. There is not an easy answer to that question. As I stated, the psychological or psychosocial dysfunction that accompanies undernutrition is an interactional problem. It involves both the mother and the child. Some of the cases of what we would classify as neglect have to do with the infants themselves, their inability to elicit parenting. And that does not apply simply to parents. It also applies to nurses who are taking care of such infants in the hospital. They are unable to elicit the kind of care and nurturance that a normal well-nourished infant is able to do.

I think that that accounts for the difficulty I have in saying that this child is simply a product of their parents' neglect. These are parents that, as Dr. Christoffel said, are subject to enormous stresses. Nutrition is one of them. Taking care of a difficult infant, a young infant, is another.

Even in the Third World the most important correlates of severe undernutrition in villages are family variables. The fact that the undernourished children that we see in this country come often from dysfunctional families should not be a surprise. That is also true of the third world.

But the important point that, I think, is beginning to register with pediatricians, particularly pediatricians who work with this problem, is the importance of this interactional disorder, and treating that as well as the nutritional problems that arise.

Chairman LELAND. Very good. Dr. Pollitt, you have reported from the official 1982 Center for Disease Control nutrition survey of low income children. I am alarmed at the rate of iron deficiency anemia among these children. When I was a kid, I suffered from iron deficiency and I know what it is like. It was not until I fainted that my mother had realized the severity of this deficiency. My mother took me to the hospital and they found that I was anemic. Had she waited a few more days, I probably would not be here today. So, I speak from a relatively empathetic point of view.

I am very alarmed that the rate of iron deficiency anemia among these children was higher than the national rate documented by HHS in the late 1970's. How should we, as a nation, intervene to halt the potential damage to our children's mental development?

Mr. POLLITT. Well, I think that it is necessary first, Mr. Chairman, to clarify that the data from CDC is primarily used for nutritional surveillance and it does not have the quality that one would wish. So one has to be very cautious in interpreting those data. I add that as a caveat because I think it is necessary to be said.

I think that probably if it is true that after 1980 there is an increase in iron deficiency in the country, as it seems to be suggested by a number of investigators working in this area as well as by the CDC data, that we have to say that the previous years where there was a significant decrease was due to food assistance programs, and that to a large extent food assistance programs in the way they operated during the 1970's was perhaps the most effective preventive measure that we have had. I think Dr. Mayer was very clear insofar as that is concerned, saying that we have been able to implement a food assistance system in the country that worked successfully. And I think that we should be very proud of the fact that during the 1970's we had a tremendous effect on the nutritional status of the population. And it is very sad that at this point in

time, what we are talking is, with the fear that those preventive effects that we had are now going to be reversed and that we are going to go back to what we saw in the late 1960's or beginning of the 1970's.

Chairman LELAND. I might add, that it is just unbelievable that we are seeing a reversal of the successes that we have had, and something does have to be done. We can directly attribute many of the problems to the budget cutbacks in the social programs.

It appears to represent an ideological difference, with one part of the political structure versus the other part. I am disturbed because there are suffering children, as we saw in the Mississippi Delta, and as I see when I go to my home district in Houston. I see that poverty is growing, particularly among ethnic minorities. Even among the poor white kids, we realize that they too are suffering. The safety net is not there. The Federal Government does serve a purpose. It serves a purpose to insure our security, our national security by way of protecting our greatest future resource, our children. Dr. Shirley.

Dr. SHIRLEY. I would like just to make a brief comment on the CDC data that might be as troublesome as it is. The CDC data is based on encounters with individuals who have found their way into the system.

Chairman LELAND. What about those outside?

Dr. SHIRLEY. Not those who are not.

Chairman LELAND. This committee is bound and determined, at least its chairman is bound and determined, to get to the answers to those questions, and hopefully the solutions to those problems. I will tell you that while we differ sometimes in the means by which we want to achieve this, our committee participants on both sides of the aisle, the Republicans and Democrats, are all committed in a very bipartisan way, to achieve some positive and constructive results to these very difficult problems.

We have a struggle, as you might see, in some of our hearings between one faction and the other as to whether or not the problem presented by Dr. Christoffel is one that is integral, or relative to the purview of the Select Committee.

But I will tell you that when I see problems as grave as those we saw on the screen, as a Member of the U.S. Congress and as a human being, I feel it is my responsibility, to do what I can to help those children, to help all people who are suffering.

What you all have done today has been invaluable to us. Your contributions have been very helpful. We will study your recommendations carefully and hopefully learn from this guidance in helping to solve these many problems.

I want to thank you for being here. Thank you very much.

[Whereupon, at 1:30 p.m., the subcommittee and committee were adjourned.]

[Material submitted for inclusion in the record follows:]

PREPARED STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA AND CHAIRMAN, SUBCOMMITTEE ON HEALTH AND THE ENVIRONMENT

Today's hearings are on poor nutrition, poor health, and poor children.

Hunger is something that isn't supposed to happen in America. Because we are the richest Nation on earth, because we are the "breadbasket" of the world, we expect mothers and children to be adequately nourished.

But that is simply not the case. Hunger and malnutrition are flourishing in some regions of our country and in some parts of our population. Reports of pregnant women who go without vegetables or vitamins and infants and children who go without milk are no longer uncommon.

The health consequences of hunger—particularly for children—can be devastating:

Poor nutrition in pregnant women can result in low birthweight, the number one cause of infant mortality.

Poor nutrition in infants can produce stunted growth and development.

And poor nutrition in children can cause developmental disabilities and infectious disease.

The Reagan Administration's solution to this problem is to freeze nutrition and health programs that help care for the hungry. But ask any WIC clinic, or public hospital, or community health center about their ability to "freeze" the need for their services. It can't be done and the Congress should not allow the Administration to try.

It is true that hunger shouldn't be happening in America, but it is. And we can't afford its consequences anymore: as a deficit-ridden Nation, we can't afford the medical dollars that are spent to care for those who become sick because of their hunger; and as a just and humane people, we can't afford the lives that are lost or destroyed because of an inadequate food supply.

Hunger in America can be prevented. Today's hearings will show us what happens to our children when it isn't.

PREPARED STATEMENT OF HON. MICKEY LELAND, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF TEXAS AND CHAIRMAN, SELECT COMMITTEE ON HUNGER

I am pleased to be here today as the Select Committee on Hunger and the Subcommittee on Health and the Environment come together to receive testimony on the effects of hunger on infant and child health in the United States. Certainly, when the latest statistics report that one out of every four children under the age of six, and one-half of all black children live in poverty, it is undeniable that millions of children are indeed vulnerable to hunger.

Even these words, "vulnerable to hunger," cannot bring to life the severity of the physical and psychological damage which can result when a child does not have enough food to meet basic nutritional needs. In the 1960's we forged a bipartisan national commitment to guard the nutritional well-being of the children of this Nation. We established policies that attempted to assure every child an equal opportunity to grow, develop and learn to his or her full potential. In recent years, we have watched this commitment take a back seat. Consequently, National, State and local studies report that extensive hunger exists in the 1980's and it is adversely impacting upon the health of our infants and children.

We are hearing that improvements in the national infant mortality rate are slowing down for the first time in twenty years. The rate of low birth weight has not significantly improved for several years. Furthermore, health professionals across the Nation are reporting increased numbers of children with iron-deficiency anemia, growth stunting and failure to thrive. They also report that children who are mildly malnourished suffer increased susceptibility to infection and are apathetic to their environment.

In 1979, the surgeon general of the United States issued two modest objectives for the Nation: (1) by 1990, no county and no racial or ethnic subgroup should have an infant mortality rate in excess of 12 deaths per 1,000 live births; and (2) by 1990 low birth weight babies should constitute no more than 5 percent of all live births. However, based on projections made by the Department of Health and Human Services neither of these goals will be reached. I believe that we must set national priorities for eliminating all health consequences of hunger. We must launch a renewed campaign designed to protect our children from the effects of malnutrition and hunger. If we don't begin today, we will pay far more in the future.

We will hear today from health professionals who treat undernourished children, experts who have researched the physical and mental consequences of not getting enough to eat, and a low-income mother who has participated in the WIC Program. I am confident that these witnesses will offer statements and recommendations which will assist us in alleviating the adverse effects of hunger on infant and child health.

PREPARED STATEMENT OF HON. LEON E. PANETTA, A REPRESENTATIVE IN CONGRESS
FROM THE STATE OF CALIFORNIA

As a Member of the Select Committee on Hunger, it is a pleasure to join our colleagues on the Health and Environment Subcommittee to examine the health consequences of malnutrition at today's hearings. I welcome our distinguished panel of witnesses.

When I joined the Select Committee on Hunger one short year ago, I did so with the serious intent to investigate the extent of hunger and malnutrition in America and to use whatever evidence was gathered to develop public policy improvements. As Chairman of the Nutrition Subcommittee, which has jurisdiction over Federal emergency food and nutrition assistance programs, I am committed to see our policy recommendations accepted.

In concert with other Members of the Select Committee, I cosponsored H.R. 1856, a bill which expands the scope and effectiveness of the Federal food stamp and commodity distribution programs. The legislative objectives outlined in H.R. 1856 have served to assist me and other Members of the Nutrition Subcommittee in drafting the 1985 Hunger Relief Act.

H.R. 2422 is a reauthorization bill, which has at its heart the beneficiaries of food stamps and emergency food assistance. The bill aids beneficiaries by simplifying program management and eligibility criteria; expanding considerations given to the special needs of beneficiaries, which might include higher than normal medical bills; allowing separate deductions for shelter and dependent care deductions in calculating food stamp benefits; and finally guaranteeing food stamp recipients the full value of the food dollar, by taking into account the eroding affect of inflation and other factors. H.R. 2422 maintains the Temporary Emergency Food Assistance Program (TEFAP) at its current level and authorized Federal funding for enhanced nutrition education.

While the bill serves as a responsible starting point in our negotiations for improved food assistance policy, I am aware that our mission is much greater. In cooperation with the Select Committee, at hearings in the field and in Washington, we are learning that hunger and malnutrition have long-term consequences which we had not contemplated. At hearings in Boston early this year, I learned that the Governor has established a statewide network of clinics for "failure to thrive" children. Reports of stunted growth and developmental disabilities among these small children alarmed me. In Oklahoma in March, I was astonished by the numbers of mothers and children waiting in line at a local soup kitchen.

In Washington in April, the U.S. Conference of Mayors conducted a national survey which revealed that the demand for emergency food assistance in 21 of 22 of our largest cities is increasing. Many who come for emergency food assistance are currently being turned away empty-handed.

In recent months, I have also learned about the troubling upswing in infant mortality—largely among low birth weight infants and babies throughout the first year of life, after the critical newborn stage. Although some may be reluctant to see the correlation between adequate nutrition and child and maternal health, I am interested in learning more. Already I know that for every \$1 spent for pre-natal health care \$6 in newborn intensive care costs can be saved. But, I want to know more about the long-term advantages of good nutrition, and the consequences of specialized care for the lifetime of children and adults without it.

Today's hearing should give us all greater insight into the relationship between adequate nutrition and good health. I look forward to working with Members of the Select Committee and the Health Subcommittee to devise a strategy for reversing the trends of discouraging news, and set out on a course toward better nutrition and better health.

PREPARED STATEMENT OF JEAN MAYER, PRESIDENT, TUFTS UNIVERSITY, MEDFORD, MA

The history of America's attempts to provide adequate nutrition for its children goes back to the conquest of rickets with the fortification of milk with vitamin D and the eradication of pellagra by the fortification of flour with B vitamins plus the campaign to add more dairy products and meat to the diet of rural poor in the southern area of the nation.

The commodity program, which generated the food stamp program, was instituted in the 1930's to dispose of surplus farm products. But the school lunch program begun in the mid-1940's originated from the rejection of about half of the prospective drafttees in World War II because of conditions related to childhood malnutrition. A great many of them, for example, had lost all their teeth.

The assumption of the decades immediately following the war that all Americans were well fed was shattered by the findings of the Southern Christian Leadership Conference and of the teams sent across the country by the Field Foundation that hunger and malnutrition existed in every area of the nation, and in every ethnic group. Hearings in 1968 before House committees and the Senate Select Committee on Hunger and Malnutrition resulted in President Nixon's decision to call the 1969 White House Conference of Food, Nutrition and Health.

The Conference, attended by 3600 delegates, produced 1800 recommendations, most of which were implemented by three Administrations and the Congress. Throughout the history of the expansion of our large feeding programs, there has been until very recently completely bipartisan agreement between Republicans and Democrats that hunger and malnutrition should be eliminated from the world's wealthiest nation.

The results of this joint effort were documented by another Field Foundation report (as well as a number of studies in scientific journals on specific feeding programs). Teams sent once again across the country, many of them the same physicians and scientists who had gone in the 1960's, and to the same areas, reported that the facts of hunger had changed, although poverty had not. The situation was manageable and improving.

The cutbacks in funding that have occurred since 1980, coupled with inflation and recession, have once again altered the situation. While we are not back to the conditions of the 1960's, we have lost about a third of the gains and will lose more unless the actions reversed. In addition, the composition of the population living in poverty has changed. Today, the poorest families tend to be headed by women. The proportion of children living in one-parent, female-headed households has increased. It is estimated that one in every three American children will be on welfare at some time before he or she reaches 18.

The evidence of the difference made by the food stamp program, the supplemental WIC program, and to a lesser extent the supplemental school feeding programs to the physical health of American children and the increasing evidence of the reappearance of malnutrition among children in every area of the nation are more than sufficient to warrant the restoration of funding and the expansion of these programs to reach every child living in poverty.

PREPARED STATEMENT OF JUDY MCGHEE, A WIC PROGRAM PARTICIPANT FROM NEW JERSEY

My name is Judy McGhee. I am originally from Birmingham, Alabama. I am presently living in Newark, New Jersey. The reason that I am participating in this hearing today is to let my voice be heard for mothers with the same concerns on child rearing and nutrition and how we survive as a whole. I would like to share my experience by first saying, at one point in my life, I've lived a very comfortable life. I was part of the working class of people, such as you, with a very promising and successful start, with various skills, like typing and clerical skills and air travel training.

However, my life took a turn. Moving to another state, where the cost of living is higher and I was away from my family, put my back up against the wall, so to speak, and life began to get difficult in many ways.

I later became pregnant and unable to work. I was told I was not eligible to receive food stamps until I had my own apartment. The money I needed (AFDC), I was told I would not receive until after the birth took place. I was surviving off my mother's little income in which she was providing for herself. This was not enough to supply me with the extra nutritional food intake my unborn child needed for the proper growth and development.

My physician made me aware of the importance of my diet. It needs many dairy foods, fresh vegetables and fruits, most of what I had very little of. This is when I turned to the WIC Program for help. Without this help, I don't know how I would have produced a healthy baby weighing 7 lbs. 14 1/4 oz.

Since then I have become a proud mother of four. I have a 5 year old, a 3 year old, and a set of twin girls, one month and nine days old.

The WIC program is a real help to mothers like myself with infants and small children. Mainly, if you are living off a low income budget, in a high crime area, where food prices are sky high and food stamps is just not enough to cut it, WIC can be a matter of life and death.

Let me give you an example of my income and expenses so you can comprehend exactly the situation. I receive \$385 per month in AFDC and \$117 in food stamps.

With this I have to pay for rent and food, non-food necessities, clothes and shoes and household things. I have no other income.

The markets in my neighborhood don't give you much of a choice of anything. Vegetables, fruits, and meats are not fresh and they're asking too much money, particularly around the first of the month. I only go to the neighborhood supermarket once per week—only for odds and ends. Usually, to shop I have to leave the neighborhood, past the downtown area, into another part of town where I can get fresh items at a reasonable price. I am a careful shopper. I try to buy in large quantities to stretch my budget and I also buy at a discount meat packing house. Some items are still out of reach, like some types of meats, or I might settle for frozen and canned vegetables and no frills and store specials.

As I said, WIC can really be a help. I could have lost my twins, but this program helped save them. I was anemic this time and had to eat for three. I needed all the nutrition I could get, but I didn't get on the program until the sixth month of pregnancy. There was a mix-up in getting on the program because the desk clerk at the clinic told me I could not get on. I was later told by the WIC interviewer that I was given misinformation and should have been on sooner.

I was then asked the question that is required by this program. I was asked how I was surviving on so little nutrition. I explained that I had two other small children at home, so I just did without so they could at least have a glass of milk per day. With their help I was able to get some of the extra nutrition my body needed. But still, this was not enough. I was later placed in the hospital during my eighth month and put on a special nutritional diet in order to give birth to two healthy babies weighing 4 lb. 11 oz. and 4 lb. 12 oz.

I feel this program is extremely needed and should remain active for the mother during this period, and after the birth of the baby. My twins are not on the program yet (or any program for that matter), but when I am able and they do get on WIC, it will help in purchasing the Enfamil, which costs about \$1.99 for a quart can. I just can't afford that with two babies drinking that formula. Right now I am nursing and substituting my own Carnation milk formula, which I know is not the best thing. Then again, what mother will stand by and see her child without any milk because she cannot afford the price that the market is asking?

Thank you for giving me the opportunity to speak in behalf of myself, and share my experiences with you.

PREPARED STATEMENT OF WILLIAM G. BITHONEY, M.D., DIRECTOR, THE GROWTH AND NUTRITION CLINIC, CHILDREN'S HOSPITAL, BOSTON, MA

Mr. Chairman, members of the Committee, ladies and gentlemen: I consider it an honor to be invited to address the committee on the subject of hunger in the United States and the role of federal food assistance programs in helping to ameliorate this vexing problem. I am currently the Director of The Growth and Nutrition Clinic at Children's Hospital in Boston. This clinic was established with funding from the state of Massachusetts Dept. of Public Health, in order to treat children suffering from childhood undernutrition also known as "the failure to thrive syndrome".

Failure to thrive occurs in all socioeconomic strata. Children can become malnourished for any of a number of reasons including organic medical disease, child abuse, neglect and various psychologically based eating disorders. However, it is also our clear experience confirmed by the results of the Massachusetts Nutrition Survey (MNS) that the incidence of undernutrition varies linearly with poverty and that the poorest children suffer from undernutrition at a high rate. These data have clearly indicated to me that there exists in this country a group of children whose access to adequate nutrition depends largely on their access to federal and/or state food assistance programs.

I would like to have introduced into the record a complete copy of our report, The Massachusetts Nutrition Survey, presented to the Governor of the State Massachusetts in late 1983. Therefore I will only briefly summarize our findings here. We measured height, weight and blood count of 1,429 low income children aged 6 months to 5 years 11 months, who lived in the Commonwealth of Massachusetts. The 1983 MNS is a point prevalence study. As such it is capable of describing the nutritional status of the sampled population at a single point in time but cannot monitor trends in nutritional status. The survey design cannot evaluate the efficacy of publicly funded supplemental nutrition programs nor the effect of loss of these benefits. The survey was initiated in response to reports of increasing malnutrition in the Commonwealth that appeared in the Spring of 1982.

The population surveyed was not representative of all children in the Commonwealth. Rather, the survey targeted individuals who because of their socioeconomic status, are most likely to develop nutritional deficiencies. I will list for you our major findings:

I. Chronic malnutrition is a significant public health problem in low income, pre-school children in Massachusetts. 9.8% of all children surveyed had low height for age. This implies that almost 5% of all children measured had evidence of chronic malnutrition. From these data we estimate that in the Commonwealth of Massachusetts there are between 10,000 and 17,000 children who are chronically undernourished.

II. Anemia and obesity were identified as nutritional problems among this group of children. Overall, 12.2% of all children tested were anemic. This usually is the result of iron deficiency. An additional problem we discovered was 8.1% of all children sampled were obese. In poor populations obesity occurs in children who overeat foods that are high in carbohydrates, low in other nutritional value but relatively inexpensive. Overall, not including obesity; 18.1% of the survey children had at least one indicator of undernutrition.

III. Three groups of children were identified as being at particularly high risk for malnutrition: a) All children below the poverty level, b) poor white children and c) southeast Asian children. 12% of children below the poverty level had heights indicative of possible chronic undernutrition. 17% of white children living in poverty had height for age less than the fifth percentile. 27% of Southeast Asian children were also less than the fifth percentile. However this may have reflected poor nutrition prior to entry into the United States.

IV. 46% of children surveyed were currently obtaining WIC vouchers and supplemental nutrition. The WIC programs has been shown, as you know to be highly efficacious in improving the nutritional status of children (documentation) and yet in spite of this our results showed significant undernutrition in the Commonwealth of Massachusetts, a relatively wealthy state with the lowest rate of unemployment among the industrialized states in America. The implication is that without these programs our results would be even worse.

Because of these findings the Commonwealth of Massachusetts passed a supplemental nutrition bill. The first state in the nation to do so. As part of this measure our clinic was funded to treat children who are undernourished. We have been operating since August 1984. Since then we have seen 59 children suffering from the failure to thrive syndrome. As I mentioned, some undernourished children are relatively wealthy and fail to grow for reasons other than inability to purchase food. However, the overwhelming preponderance of children suffering from severe malnutrition in our clinic are desperately poor.

Internationally, malnutrition is graded as first, second and third degree. Third degree malnourished children are similar to those seen on the nightly news living in Ethiopia or Biafra. Since August of 1984 we have seen 13 children suffering from third degree malnutrition in our clinic. 10 of these children were living below federal poverty level. All of them had family incomes less than \$6,999 per annum. In our clinic we actively advocate for our children, enrolling them in WIC and the federal Foodstamp Program. We also actively intervene in order to treat the concomitant psychological and social problems seen in our families. Without access to federal supplemental nutrition programs our hands would be tied, we could not assist these children adequately.

I would like to close my testimony with a couple of case examples of the effectiveness of current federal programs.

CASE 1

I was asked to examine a 2½ year old child who was dropped from the WIC program cause her mother did not comply with the necessary administrative requirements of the program. At the time that the child was dropped from the program her weight was 28 lbs, which was in the fiftieth percentile—quite normal for age. Over a period of eight months the child fell to well below the 5th percentile. She weighed only 22 lbs. She became acutely malnourished (third degree malnourished) over this period. Her weight at age 3 years and 2 months was that of a normal 14 month old. The child developed a severe pneumonia, exacerbated by the malnutrition. Mother informed me that since being cut off WIC she had been unable to afford food for her child. Because of the child's anemia and undernutrition the child was easily re-enrolled in WIC and over the past year has recovered beautifully.

CASE 2

A one year old child was dropped from the WIC program, again because of procedural issues not budget cuts, and subsequently became undernourished. Her mother who stated that she could not afford formula or milk for the child any longer fed her child diluted coffee lighener hoping that this would be adequate. The child fell from approximately the 50th% to less than the third percentile until she was re-enrolled in WIC. This means that her weight fell from about 20 lbs to 18 lbs over 9 months. Thus at age 21 months she was the size of a normal 8 month old.

In summary, I would like to make three points:

1. Childhood undernutrition is a significant problem in the Commonwealth of Massachusetts. It is not comparable to that seen in Ethiopia or other developing countries. However, there are many isolated cases of children who suffer severe protein calorie malnutrition because of parental inability to purchase food.

2. The WIC and Foodstamp programs play a significant role in preventing undernutrition. I direct a clinic that sees many undernourished children. Just as penicillin is used to treat pneumonia we use federal food programs to fight undernutrition. Finally, I would like to state clearly to this committee that there exists in the state of Massachusetts a group of children whose access to food is tenuous at best. These children depend in large measure on federal food assistance programs in order to prevent them from becoming undernourished. I know this to be true, for I have seen them. Thank you.

THE TYRANNY OF INDIFFERENCE AND THE RE-INSTITUTIONALIZATION OF

HUNGER, HOMELESSNESS AND POOR HEALTH:

A Study of the Causes and Conditions of the Food Emergencies
in 1,506 Households with Children in
East Harlem, Brooklyn and the Bronx
in 1984

"FOR FROM THE LEAST OF THEM
EVEN UNTO THE GREATEST OF THEM
EVERYONE IS GIVEN TO COVETOUSNESS:
AND FROM THE PROPHET EVEN UNTO THE PRIEST
EVERYONE DEALETH FALSELY.

THEY HAVE HEALED ALSO THE HURT OF THE
DAUGHTER OF MY PEOPLE SLIGHTLY SAYING,
PEACE, PEACE: WHEN THERE IS NO PEACE."

Jeremiah,
Chapter 6, 13-14

Prepared by Dr. Anna Lou Dehavenon
for The East Harlem Interfaith Welfare Committee
2050 Second Avenue, New York, N.Y. 10029 (212) 427-1500
Contact persons: Premnath S. Dick and Lydia Lopez

May 8, 1985

Abstract

A questionnaire completed with the representatives of 1,506 household with children who sought food assistance from religious voluntary agencies in 1984 is the primary data base for a study of the conditions and causes of hunger in the poorest areas of East Harlem, Brooklyn and the Bronx. Comparisons are made of the prevalences of stress and diet-related medical problems in East Harlem since 1979 and city-wide in 1984; of the length of household food emergencies¹ in days by income status and of solid food consumption; of rates of going to local Welfare Centers for help and of borrowing begging and stealing for food.

The primary causes of hunger conditions are identified as unemployment among marginal workers, the impact of inflation on Welfare grant levels since 1969 and New York City's policy of closing large numbers of income eligible Welfare cases monthly for administrative reasons. Recommendations for legislative and administrative change are included.

¹ A food emergency is defined as occurring when a household is determined to have run out of food or to be in imminent danger of doing so according to the criteria the agencies in this study use to provide emergency non-perishable food supplies.

Preface

Children make up at least 70 per cent of the population on Welfare nationally and in New York City. Because the experiences of our Committee's members bear witness to the very low priority of their needs in the Reagan administration's budget decisions and in New York City's administration of Welfare programs since the mid-1970s, this report focuses on hunger conditions in households with children as in each year since 1981.

It provides a picture of the people and situations which arose with the increased workloads experienced by the agencies in this work throughout 1984 as they tried to mitigate some of the suffering of poor families who came to them in food, housing and health emergencies. A recent survey of the numbers of food emergencies they served during the first three months of 1985 shows that this increase has not abated in the city's poorest neighborhoods in East Harlem, Brooklyn and the Bronx.

We can safely assume that the dimensions and realities of hunger, homelessness and poor health are even more widespread and painful than these increases suggest, since our documentation is only of those households which come to our agencies for help. The data we don't have is on what proportion our research sample represents of all the food, housing and health emergencies that actually occur in these neighborhoods. Probably it is only the tip of the iceberg, because year after year our studies have shown that most of those who come to us for help have already been assisted by individuals in their interpersonal safety nets or by begging and stealing. Fewer and fewer of them have sought help at their local Welfare Centers.

The East Harlem Interfaith Welfare Committee's purpose in producing this report is to bring some of the conditions and causes of hunger, homelessness and poor health out into the open and into the public consciousness. In our efforts to focus public action on the causes rather than the symptoms of these conditions, we also submit the recommendations for legislative and administrative change which are in Part G. on page 77. of the full report and on page 11. of this summary.

I. INTRODUCTION.

Since 1979 the religious, voluntary agencies on the East Harlem Interfaith Welfare Committee¹ have been the only institutionalized sources of non-perishable emergency food supplies and of the advocacy services which many families in neighborhoods like East Harlem need to obtain the benefits to which they are legally entitled at their local Welfare Centers. These agencies and their clients experience daily the impact of high unemployment rates among marginal workers and of the facts that (1) the basic Welfare grant in New York State has increased only 28 per cent since 1969 as against a 185 per cent increase in the Consumer Price Index during the same period, and (2) New York City's tight-fisted administration of Welfare since 1975 and the Reagan budget cuts since 1981 have put families whose primary wage earner is without or unable to work at very serious risk for hunger, homelessness and poor health.

Based on their years of front-line experience, the Welfare Committee's member agencies know that preserving family income is the bottom-line in preserving family health.² They have, therefore, routinely completed a research questionnaire² on work and welfare and the causes and conditions of household food emergencies³ with some of their clients as a part of their working for changes in the legislating and administration of Welfare programs.

None of the Welfare Committee's member agencies has a budget line for emergency food and none has been able to increase their staff resources to help them respond to the exponential growth over the past six years in the requests for food they receive. They nevertheless served 4,290 food emergencies in East Harlem in 1984 as compared with 3,405 in 1983; 2,330 in 1982; 1,056 in 1981; 130 in 1980 and 90 in 1979.

1

These agencies include East Harlem Catholic Charities, East Harlem Interfaith, Little Sisters of the Assumption Family Health Services, St. Cecilia's Parish Services and Resurrection House Family Service Center.

² See Appendix 1. for the tally sheet and questionnaire used in this study.

³ For the purposes of this work, a food emergency exists when the representative of a household comes to one of the agencies in this study and reports that the household is in imminent danger of or has already run out of food.

In 1984 the East Harlem agencies were joined in their efforts to document the causes and conditions of household food emergencies by five religious voluntary agencies¹ with similar social service programs in Brooklyn and the Bronx. Using the same methodology, they documented serving an additional 2,175 food emergencies in 1984.

The commitment of these ten agencies to systematic documentation as the essential tool of their advocacy and consciousness-raising efforts is the reason for their taking the additional work-time needed to explain the purposes of the research to their clients, to obtain their informed consent and to complete the questionnaire. Because their workloads were sometimes too heavy to complete these steps with every household which met the research sampling criteria, (See p. 13), the 1,506 households in this report do not include all of the 2,229 households with children who came to them for help in at least one food emergency in 1984 (See Table 1. on p. 12).

II. SUMMARY OF FINDINGS

1. The agencies in this study were more institutionalized than in previous years as the primary source of relief from hunger for households in food emergencies in New York City neighborhoods with the highest rates of unemployment and Welfare participation:
 - o the number of requests they receive for food continued their earlier rise throughout 1984 and the first three months of 1985.
 - o Welfare Centers, churches and other community-based organizations continued to refer them large numbers of their own people whom they were unable to provide with food or money for food.
 - o large numbers of households referred themselves because they were not coming for the first time, particularly in Brooklyn and the Bronx (See Table 34. in Appendix 3.)
2. Almost two-thirds of those in food emergencies were children under age 18 (See Table 2. on p. 14).

¹ See Appendix 2. for the criteria used to select these agencies for participation. They include the Bushwick, Crown Heights and St. John's Human Services Centers of Catholic Charities in Brooklyn and the Citizens' Advice Bureau and the Dominican Sisters Family Health Services in the Bronx.

3. Only one out of every three adults in these households was a male (See Table 2. on p. 14), reflecting in part their higher rates than women of unemployment and non-inclusion in Welfare programs, of incarceration and participation in the military, and of death from accidents and violence.
4. Only 77 per cent of these households were living in their own apartments (See Table 4. on p. 17).
 - o 17.6 per cent were living in conditions of incipient homelessness with friends or family members, particularly in the Bronx.
 - o 5.4 per cent were homeless and living in City shelters, abandoned buildings or hotels, somewhat more frequently in Brooklyn and the Bronx than in East Harlem.
 - o In Brooklyn, households were more likely to have no shelter at all, and in the Bronx they were more likely to be living in an abandoned building.
5. Data on other at risk for homelessness and hunger factors include the following (See Table 12. on p. 26):
 - o 35 per cent of the 1,058 households already on Welfare were paying out of their food money for rent because their Welfare shelter allowance did not cover its full cost.
 - o 6 per cent of the households already on Welfare had taken in one or more new household members to live in their own apartments.
 - o 5 per cent of the households already on Welfare were being recouped from each of their checks for the payment of back rent.
6. Twenty-nine different configurations of male and female adults in the parental, grandparental and great-grandparental generations were living with the children in these households to provide them with shelter, nurturance and socialization (See Table 3. on p. 15). This suggests that:

- c family structure in very low-income households is much more varied and complex than is implied by focusing primarily on the female-headed, single-parent household which, while constituting the most frequent structure in this study (59.2 per cent of all households), was only one among many.
- 7. In each of the Committee's studies since 1979, asthma, hypertension, heart condition, physical disability, mental illness and allergy are the most frequently reported professionally diagnosed medical problems in households interacting with the Welfare system.
 - o Anemia was reported as frequently as allergy for the first time in 1982.
 - o Arthritis, alcoholism, bronchitis, pregnancy and diabetes were reported in at least the same frequency as one or more of the seven problems reported above for the first time in 1983.
 - o Emotional problem and epilepsy, or other seizure disorder, were reported in at least the same frequency as one or more of the 12 problems reported above for the first time in 1984.
- 8. All of the 14 most prevalent medical problems in households on Welfare were more prevalent in these households than in households not on and newly applying for Welfare with the exception of physical disability, arthritis and alcoholism (See Table 8. on p. 22).
- 9. Seventy per cent of the diagnoses reported by the households on or re-applying for Welfare were for stress-related medical problems (See Table 5. on p. 18).
 - o 15 per cent of these households reported no professionally diagnosed medical problems; 43 per cent reported one; 25 per cent reported two, and 17 per cent reported three or more.
 - o The six most prevalent problems in these households (asthma, hypertension, anemia, emotional problems, pregnancy, bronchitis) were all reported more frequently in Brooklyn than in the Bronx and East Harlem.

- o Anemia was reported twice as frequently for this population in East Harlem in 1984 as in 1983.
 - o Households cut off Welfare and/or Food Stamps reported higher frequencies of certain stress-related medical problems (emotional problems and mental illness) malnutrition, epilepsy or other seizure disorder, and pregnancy (See Table 27. and 28. on p. 63).
10. Sixty-two per cent (or 8 per cent less than for the households in finding 9. above) of the diagnoses reported by the households not on and newly applying for Welfare were for medical problems which are stress-related (See Table 6. on p. 19).
- o Twenty-five per cent reported no diagnosed medical problems; 44 per cent reported one; 17 per cent reported two; 14 per cent reported three or more.
 - o Five of the six most prevalent medical problems in this population were reported in higher frequencies in Brooklyn: asthma, hypertension, emotional problems, pregnancy and physical disability.
 - o Anemia was reported for 16 per cent of this population in East Harlem as compared with 6 per cent in 1983.
11. The findings in Nos. 8. to 10. suggest that households already on, or cut off and re-applying for Welfare, have higher prevalences of the most frequently reported medical problems, of stress-related medical problems, and of numbers of problems per household, than households not on and newly applying for Welfare, and that these prevalences are all greater in Brooklyn than in the other two boroughs.
12. Three stress-related medical problems are more prevalent in the entire food emergency population in 1984 than in the population in the National Health Interview Survey for 1981, the most recent year for which data is available: asthma is 8.8 times as prevalent; hypertension is 1.9 as prevalent, and diabetes is twice as prevalent (See Table 9. on p. 23).

13. Anemic conditions, many of which are closely associated with poor nutritional status, are 12.4 times as prevalent, and bronchitis is 1.8 times as prevalent in the food emergency population as in the NHIS sample. (See Table 9. on p. 23).
14. A larger proportion (88 per cent of the food emergency households city-wide) were interacting with the Welfare system than in East Harlem in previous years (81 to 85 per cent) (See p. 24).
15. Sixty-three per cent of those interacting with the Welfare system city-wide in 1984 were already receiving benefits as compared with 60 per cent in East Harlem in 1983 (See Table 11. on p. 25).
16. One-third of those interacting with the Welfare system city-wide were without any source of income while they were applying or re-applying for Welfare (See Table 11. on p. 25).
17. There were more new applicant households in Brooklyn and the Bronx, but there were slightly more re-applicants in East Harlem (See Table 10. on p. 24).
18. A larger proportion of the Brooklyn households (8.3 per cent) was without any source of income and not applying or re-applying for Welfare than in East Harlem (2.5 per cent) or the Bronx (3.5 per cent) (See Table 10. on p. 24).
19. Seven per cent of these households had just lost jobs and 4 per cent were still working when they came for help in a food emergency (See Table 10. on p. 24).
20. Almost 5 per cent reported that they were receiving the WIC nutritional supplement for Women, Infants and Children (See Table 10. on p. 24).
21. The most frequent reason all households interacting with the Welfare system gave for being in food emergencies (28 per cent) was that they have to use their food money for rent because their P.A. Shelter allowance does not cover it. (See Table 12. on p. 26);
 - o the second most frequent reason was that they had run out because their Welfare and Food Stamp benefits are not enough (19 per cent).

- o the third most frequent reason was that their Welfare and/or Food Stamp cases had been closed and they were having to re-apply (18 per cent).
 - o the fourth most frequent reasons was that they were applying for Welfare and had no money to pay for food (15 per cent).
22. Households cut off and re-applying for Welfare experienced the longest food emergencies on the average (24 days). The Mean length of the food emergencies in households applying for Welfare was 22 days; for those already on Welfare, 12 days; for those on Welfare and Social Security or S.S.I., 7 days (See Table 14 on p. 30).
 23. Forty-three per cent of the food emergency households city-wide reported that they had been in food emergencies for more than two weeks as compared with 37 per cent in East Harlem in 1983 (See Table 13. on p. 29).
 24. One-quarter of the contact persons for help for these households in food emergencies reported that they personally had not had anything to eat or drink since the day before, and almost half of them said they had only had something to drink that day (See Table 16. on p. 31).
 25. Coffee was reported most frequently as the liquid most recently consumed (28.6 per cent) and water was the second (26.4 per cent) by the contact persons representing households interacting with the Welfare system (See Table 17. on p. 32).
 26. Fifty-six per cent (as compared with 46 per cent in E.H. in 1983) of the contact persons for households interacting with Welfare reported most recently eating a solid food which contained some animal protein, and the most frequently reported was meat with or without rice and beans (See Table 18. on p. 33). These findings suggest the following:
 - o that in contrast with the Committee's earlier studies in which the protein food most frequently reported by contact persons in East Harlem was chicken, the city-wide population in 1984 was more likely to consume some other meat.

- o that contact persons are connecting with soup kitchens where meals are served more frequently than in earlier years and than in East Harlem.
- 27. Rice, beans, or rice and beans, were reported most frequently city-wide as the most recently consumed solid foods without animal protein as in all previous years in East Harlem (See Table 17. on p. 32).
- 28. A much larger proportion (56 per cent) of those interacting with the Welfare system reported that they had not gone to the Welfare Center for help before coming to one of the Committee's agencies in a food emergency than in the years before 1983 in East Harlem (See Table 19. on p. 43).
 - o They were most likely to go only when applying or re-applying for Welfare and/or Food Stamps or when they had had a fire.
- 29. Friends were the most frequent source from which households in food emergencies tried to borrow food, food stamps and money city-wide in 1984 as in East Harlem in each of the years after 1979 (See Tables 20. and 21. on pp. 45 and 46).
- 30. Family members were the most frequent source from which to actually receive borrowed food, food stamps and/or money city-wide in 1984 as in East Harlem in each of the years since 1979 (See Tables 20. and 21. on pp. 45 and 46).
- 31. The proportion of the food emergency households which reported having to beg for food to feed themselves and their children was one-third city-wide or nearly equal to that reported for East Harlem each year after 1982 (See Table 22. on p. 49).
- 32. The proportion of the food emergency households which reported having to steal for food to feed themselves and their children was 12 per cent city-wide or 2 per cent more than for East Harlem in 1983 (See Table 22. on p. 49).
- 33. As in East Harlem in each of the past five years, the closing of the cases of still needy households with children for administrative reasons was the primary reason for the food emergencies in at least 23 per cent of those already on Welfare city-wide in 1984 (See p. 60).

34. 12.5 per cent of the cut-off households had not yet contacted the Welfare Center to begin to re-open their closed cases and were at serious risk for becoming homeless because they had no regular income from which to make monthly rent payments (See Table 31. on p. 70).
35. At least one quarter of the case closings in the cut-off households were caused by errors on the part of the Welfare system (See Table 30. on p. 65).
36. Households cut off Welfare were more likely than other food emergency households to have to resort to begging and stealing to feed themselves and their children (See Table 33. on p. 73).

I. BACKGROUND TO THE WELFARE COMMITTEESRECOMMENDATIONS IN 1985

The Community-based experience of the agencies working with the East Harlem Interfaith Welfare Committee in the production of this research study shows that household food emergencies and the human dilemmas they produce throughout New York City are caused by the following:

- o high rates of unemployment among marginal workers and insufficient Day Care for mothers who want to work.
- o the impact of long-term inflation rates on Welfare payments which, unlike other Government entitlements, are not indexed to the Consumer Price Index.
- o the Koch administration's policy in New York City of closing the cases of needy and eligible Welfare clients for administrative reasons and of other-wise not providing the services to which people are legally entitled, because of its focus on budget issues and fiscal accountability rather than on the functional delivery of services to the people who need them.
- o severe shortages in new or rehabilitated construction of subsidized housing for low-income households.
- o the Reagan administrations' economic priorities which have resulted in severe cutbacks in job, social, housing and health care programs.

Unemployment rates among marginal workers remained at record high levels in 1984 in New York City even after certain other economic indicators had substantially improved. The basic cash grant for Welfare clients in New York State paid only thirty-seven per cent of the costs of the budget items it had been designed to cover in 1969. These include a household's basic food supply, clothing, utilities, transportation, furniture, school and all other miscellaneous expenses exclusive of the rent allowance paid by Welfare, the medical costs covered by Medicaid and the Food Stamp supplement. While Governor Cuomo increased the Welfare Shelter allowance approximately

25 per cent in early 1984, only 77 per cent of the households in this study had their own apartments, and 35 per cent of them were having to pay excess rent costs out of their cash grant or food money since the Governor's increase had not brought the Shelter Allowance up to actual market prices.

Under Mayor Koch and the Human Resources Administration in New York City, the administering of Welfare became more and more dehumanized in 1984 city-wide as the noose of tightened procedures threatened the very survival of many low-income individuals and households in the dual interests of fiscal accountability to the Federal Government and budgetary savings. At local Welfare Centers, many new and destitute applicants did not even receive the expedited Food Stamps and emergency grants to which they were legally entitled. The only emergency payments available at the Centers were for families burned out of their homes or for those who had fallen behind in rent or utility bills and for whom a grant (to be recouped later from their regular Welfare checks) would avoid eviction or the loss of services. Those who had run out of food or who were in danger of doing so, the Center referred by name to voluntary agencies like those participating in this study for emergency assistance.

As shown by its own latest statistics¹, HRA's policy of "churning" the Welfare cases of large numbers of needy and eligible persons monthly for alleged failure to comply with its procedures continued to be one of the primary causes of hunger in 1983 and the first six months of 1984. In 1982 the Welfare Committee's study estimated that this policy caused 150,000 children annually to live for one month or more in the hunger conditions it describes. This estimate is considerably higher for 1984 when the average numbers of Welfare cases closed and re-opened each month was 1,200 more than in 1982 during the first six months. (See Tables 23. and 24. on pp. 59 & 60 of this study).

Families like those in the Welfare Committee's annual studies, effected as they are by these and other injustices in the U.S. economy and political system, are at higher risk as a group for hunger, homelessness and poor health than all others. Because they are more likely to have stress-related medical problems, their margin of maneuverability in crises is much narrower than in middle-income households and in the households of individuals who are even poorer because they have children and therefore more restricted mobility.

¹ See Part F.

Because the members of the East Harlem Interfaith Welfare Committee feel that a society which spends much more on weapons and defense than on the needs of its children and countenances administrative procedures which foster hunger, homelessness and poor health is in profound trouble, they completed the questionnaire which provides the basis for this study. Their experience shows that if there is not public support for taking action to address the causes and not only the symptoms of these conditions, that the numbers of persons suffering from them will continue to increase as they have during each of the past six years.

II. THE EAST HARLEM INTERFAITH WELFARE COMMITTEE'S RECOMMENDATIONS FOR LEGISLATIVE AND ADMINISTRATIVE CHANGE IN 1985.

The purpose of this study is to contribute to the consciousness-raising necessary to build public support for the following recommendations for legislative and administrative change at three levels of government and in the private sector.

At the Federal level:

- o to redress the present administration's shift of funds from domestic social needs to the weapons and defense budget to be able:
- o to implement the legislative recommendations in the National Anti-Hunger Coalition's Fact Campaign with an emphasis on raising rather than lowering Food Stamp benefits, increasing participation in child nutrition programs in schools and Day Care Centers and in Women, Infants and Children Supplemental Feeding Program (WIC) to all those who are eligible, and increasing funds for the Maternal and Child Health Block Grant to insure health services for WIC participants (Contact FRAC, 1319 F. St. N.W., Washington, D.C. 20004, (202) 393-5060 for more information).
- o to restore cuts in Aid to Families with Dependent Children and in subsidized job and housing programs which specifically address the needs of very low-income households.

At the New York State level:

- o to restore the purchasing power of the Welfare cash grant to the level of the U.S. Bureau of Labor Statistics lower level budget on which it was based in 1969, while initiating a field-based study, in collaboration with advocacy groups, of the real income needs of Welfare recipients in the 1980s.
- o to take legislative and/or administrative action with New York City to require the suspension of Public Assistance and/or Food Stamp benefits rather than the closing of clients' cases for alleged failure to comply with agency procedures to verify continuing eligibility.
- o to establish and increase housing programs in order to expand the supply of adequate housing for low-income households, and to insure that the Welfare Shelter Allowance keeps pace with the real costs of housing.
- o to increase the income eligibility levels for the "medically needy" in the Medicaid program.

At the New York City level:

- o to explore with HRA and the City Administration low cost solutions to problems which now produce high costs:
- o by including appointment letters and questionnaires (the non-receipt of which often result in food emergencies, case closings, evictions, homelessness and having to house families and individuals in City shelters and hotels) in the electronic transfers which began in 1984 to facilitate DSS payments to Welfare clients.
- o by developing an internal reward program for DSS employees who reduce "churning" or the closing of cases of eligible Welfare clients for administrative reasons or by mistake.

- o to provide applicants (and re-applicants) for Welfare who are destitute and therefore eligible for expedited and/or accelerated Food Stamps with a pro-rated pre-determination grant¹ from the date of the initial contact to the date the expedited benefits are available in the first instance, and with a pro-rated pre-determination grant² until a determination is made on the application in the second instance.
- o to increase the private funding for the work of voluntary agencies that are stressed beyond their capacities to ameliorate the hunger and housing problems of their clients because they do not have the staff resources needed to provide the social services for which they were originally founded.

For more information, please call:

Sister Cathy Bern
Chairperson,
Legislative Committee
The East Harlem Interfaith Welfare Committee
(212) 289-6484

or

Mr. Premnath S. Dick
Co-Coordinator
East Harlem Interfaith, Inc.
(212) 427-1500

¹ For food and other expenses and a restaurant allowance.

² For food and other expenses.

PREPARED STATEMENT OF BETSEY-ANN WINSOR NEASON, CERTIFIED FAMILY NURSE
PRACTITIONER, MEDICAL CENTER OF TAYLOR COUNTY, GRAFTON, WV

Betsey-Ann Winsor Neason is a Certified Family Nurse Practitioner who has practiced at a federally-subsidized Community Health Center in rural West Virginia for the past nine years. Mrs. Neason, a Providence, Rhode Island native, received her nursing diploma from the Rhode Island Hospital School of Nursing and later received her certificate for Family Nurse Practitioner from the University of Virginia School of Nursing through a grant from the National Health Service Corps. As a Family Nurse Practitioner, she was assigned to a rural health clinic (Community Health Center) in Grafton, West Virginia in 1977; it is there that she remains today.

There are some 600 Community Health Centers today nationwide that provide some 5,000,000 persons, many uninsured or medically indigent, with quality primary health care as well as preventive health education and social agency referrals. Mrs. Neason's area of Taylor County, West Virginia, has a population of 17,200 and covers an area of 175 square miles. It is predominately white. The county has been designated as a medically underserved area (MUA) since 1975. The Community Health Center is staffed with National Health Service Corps physicians as well as the nurse practitioner.

The median family income in Taylor County is \$12,678 annually; a total of 15.2% of the county's residents live well below poverty. A total of 42.9% of the population did not complete high school and another 27% did not attend high school. Taylor County currently has an unemployment rate of 22.4%, compared to an approximate 10% nationwide.

Of the 17,000 residents living in Taylor County, 9,000 turn to the local Community Health Center for their families' health care needs. Of those 9,000 patients, 70% receive their health care through some type of governmental assistance (Medicaid, Section 330 funding, etc.), and of the remaining 30% who claim to have some type of health care insurance, 48% of them have annual incomes well below the level of poverty. In terms of age as a percentage of population, 28% of the Center's patients are 65 years of age or older, while 35% are below the age of 18.

The Community Health Center provides Health Education to Taylor County as well as primary health care. The Center also acts as a liaison between its patients and the area's various social agencies such as the Department of Human Services, local Health Department, and the WIC program. There are, however, some children who do not qualify for assistance under any of these programs. These children are the ones who manage to fall through the cracks of the system.

Through the Center's daily delivery of health care over the past nine years, it has become increasingly evident that a frighteningly large number of children today are suffering from hunger and malnutrition; approximately 10% of this Center's total pediatric population falls under that category. Children presenting with these problems display symptoms of lethargy, poor attention spans, smallness-for-age, developmental delays, anemia, etc. There are many contributing factors leading to hunger and malnutrition. In many cases, the Center has found that the children suffering from these symptoms come from families who are too poor to be considered prosperous, but too prosperous to be considered in need of governmental subsidies such as Food Stamps. And unfortunately, there are a few cases in which either pride or ignorance have kept parents from seeking the aid they require for their children.

Included in this testimony are three separate cases of children suffering from hunger or malnutrition. Although they are not as sensational as the newsreels from Ethiopia, their effects on the child's development, both physically and mentally, cannot be overlooked.

The first case in point:

A local family of three children, ages 7 through 12, and their mother have a Saturday morning ritual of combing the garbage cans of local tavern collecting aluminum cans and glass bottles which can be redeemed for cash. The cash is then used for food. The alcoholic father does receive a monthly pension check but does not share this income with his family. Even though the children reap none of the benefits of this monthly pension, its existence prohibits the mother from acquiring financial aid such as Food Stamps or Medicaid. In addition, the children are too old for WIC. So the mother and her children continue to gather their bottles and cans to sell for food, and the children continue to make frequent visits to the health center with numerous complaints (i.e. colds, stomach viruses, rashes, ear infections). . . .

A local family with seven children has reported during a past office visit that it obtains some of its food from the City dump. The head of household has no steady job but manages to work odd jobs to support his family. His income falls short of the amount necessary to support a family of nine; however, it is more than enough to

disqualify him from receiving any financial assistance. This family also has numerous medical visits annually for a variety of complaints. . . .

Another incident is that of the mother who brought her very small-for-age 14 month-old daughter to the Health Center for an illness characterized by vomiting and diarrhea which was treated symptomatically by clear liquids, 12-24 hours. Unfortunately, upon returning to the clinic, the next month, the mother had not resumed normal feedings because she was afraid the daughter would start vomiting again. When the child was seen in the clinic, it was noted that she was eating corn chips and drinking Sprite. It was also noted that she was anemic at this time and was not receiving assistance through the WIC program. She was referred to WIC at that time. In addition, further medical testing at the age of 17 months revealed by X-ray that the bone age was that of a 10 month-old.

These children are documented as frequent users of this Health Center. They suffer from frequent bouts of illness such as viruses, intestinal disorders, bad teeth, iron deficiency, learning disorders, and behavior problems.

Our local school system offers reduced/free breakfasts and lunches to any qualifying student, and it must be noted that on a daily basis, over 800 school children take advantage of this program on the elementary level. It must also be noted that teachers have reported that on at least one occasion a student, after receiving his free meal and having his stomach filled, actually fell asleep with contentment. With this in mind, one cannot help but wonder how significantly the hunger cases (and health related problems) would increase if this "Free Meals" program would cease to exist. . . .

In regard to the three hunger/malnutrition cases presented earlier for your consideration, all were initially brought to the Health Center for specific medical complaints; however, many times the initial reason for visiting the clinic is not necessarily a medical problem directly associated with malnutrition. To the alert provider, however, a visit for an acute illness may reveal through the initial screening process (height, weight, social history) that the child is either small-for-age or demonstrates evidence of a nutritional problem. This being noted, an appropriate work-up of the problem can be done which may reveal a nutritional disorder.

At our local Community Health Center, 70% of all patients require some sort of governmental assistance to receive their health care, and of this 70%, 27% rely solely on the CHC's federal grant dollars for aid. The uninsured and medically indigent populations cannot turn to the private sector for their health care needs; private practitioners are not required to routinely provide services to those who cannot pay. This is where the true strength of the federally-subsidized Community Health Center lies; they provide quality health care to everyone, regardless of their ability to pay.

PREPARED STATEMENT OF AARON SHIRLEY, M.D., CHAIRMAN, BOARD OF TRUSTEES,
MISSISSIPPI MEDICAL AND SURGICAL ASSOCIATION

My name is Aaron Shirley. I am a practicing pediatrician in Jackson, Mississippi and I serve as Chairman of the Board of Trustees of the Mississippi Medical and Surgical Association, which is an affiliate of the National Medical Association. I appreciate this opportunity to come before you to share my views on the problems of hunger and malnutrition in our nation.

As a member of the Physician Task Force on Hunger in America, I traveled around the country in 1984, looking at evidence on the prevalence and impact of hunger on the poor. I have made similar journeys twice before, in 1968 and 1977, as a participant with the Field Foundation's survey on hunger. What we found this time was of particular concern to me because there was evidence that we might be regressing back to conditions of 1968, when we found children in various parts of the country who were on the verge of actual starvation. They were stunted in their growth and development, dull and with very little vigor expected of a three, four or five year old child.

What we saw this time is troubling enough:

We saw children who are undernourished and whose growth and development has been compromised.

We saw pregnant women who lacked the diet needed for good prenatal health.

We saw men and women in the prime of life who were underweight, clinically depressed, burdened with diet-related illnesses.

We saw elderly people who knew that they were supposed to stick to carefully selected foods because of chronic illnesses with which they lived but who could not begin to afford these medically indicated diets.

What we saw first hand has been confirmed and enriched by information from local physicians and health care providers around the country. Wherever those who care for the poor reported their clinical observations or research findings, it revealed more of what we saw ourselves.

For example, in the area of child health.

The Massachusetts Nutrition Survey, which has been reported to congressional committees previously, looked at a sample of 1429 children between 6 months and 5 years. It found that about 10 percent, twice the expected number were below the fifth percentile for height. Eighteen percent of the children revealed some evidence of malnutrition.

Some critics challenged this study, hypothesizing that these were a particularly oppressed subsample of the state's poor; immigrants, for example, whose status reflected deprivation before arrival in the U.S.

A more recent study in one Boston community did take a look at a particularly oppressed subgroup. Codman Square Health Center, which served a very low-income population, including many immigrants, assessed its pediatric population and found that among children 2 months to 3 years old, 19% of a sample of 50 were acutely malnourished—their weights were extremely low—indicating stark deprivation. Even among these children, the majority were Americans born of immigrant parents. Their deprivation occurred in Boston, not in some obscure birth place.

The most extreme expressions of childhood malnutrition are, of course, kwashiorkor and marasmus, the diseases of protein, and protein/calorie deficiency associated with Third World starvation. Dr. Christoffel has told you her finding of marasmus among the children she treats in Chicago. At a health center in the Rio Grande Valley of Texas, a nutritionist with extensive international experience reported observing these diseases of starvation among her own patients. The director of an Indian health care program in New Mexico reported deaths from kwashiorkor among her people when she spoke before a Task Force hearing.

These reports shatter our preconceived notions of what can and cannot happen in the United States.

As for maternal nutrition our observations of inadequate diet during pregnancy were confirmed similarly by local observations.

The WIC Program in New Mexico reported to the Task Force that 18% of pregnant women entering their program are underweight.

A Minneapolis study found that 33% of pregnant women applying to their program—a sample reflective of the general poor population of the city—were anemic.

Some local data reflected this poor maternal nutrition when the Task Force visited Houston where health officials provided us with birth outcome data for particular neighborhoods.

In 1982, Houston's Infant Mortality Rates ranged from 23 per 1,000 live births in a poor section of that city, to less than 10 per 1,000 live births in a more affluent area.

The same pattern emerges in other big cities. New York's Infant Mortality Rate ranges from 25.6 per 1,000 live births in Central Harlem, to 7.5 per 1,000 live births a few blocks away in the city's east side ("Silk Stocking" district).

In Boston, close examination of neighborhood-specific data showed that in the poorest sections of the city, Infant Mortality Rate rose 46% from 1981 to 1982.

Comparable information is available on low birth weight, the condition underlying most (75%) of infant mortality.

In Nashville, Tennessee, we were told that from 1981 to 1982, and then from 1982 to 1983, low birth weight rates rose for both Blacks and whites in poor areas. And while low birth weight infants comprised 8.5% of all births in the county of which Nashville is a part in 1981, they comprised 12.9% of white births and 14.4% of Black births in Nashville's public hospital in the same year.

It is hard to find quantitative data on the health of adults. There are not the simple markers that growth and development provide for those looking at the status of children. However, the clinical findings and impressions of health care providers who treat poor adults and elderly Americans are, again, consistent with our own observations in our field investigation.

For example:

In Chicago, a report to the Task Force of the re-emergence of tuberculosis, a disease historically associated with malnutrition, was extremely disturbing. Dr. Jorge Prieto, president of the city's Board of Health and Chair of the Department of Family Practice at Cook County Hospital, told us that the tuberculosis statistics for that hospital's patients increased 32% in one year.

In my own State of Mississippi, one nurse described to the Task Force the cycle of poor diet and hospital admissions she sees repeatedly, "It's a vicious cycle. Before

you know it they're in the hospital because their blood sugar dropped too low or they had an insulin reaction from not being able to eat . . . We have patients eating the wrong things because it's the only thing they can get and they wind up in the hospital with strokes."

In North Carolina the physician who directs Buncombe County Health Department described a syndrome he termed "failure to thrive" among the elderly, a result of malnutrition and social isolation because of poverty.

In New Mexico the Task Force learned that a few elderly people die every year of malnutrition; they literally starve to death.

In Chicago, the visiting Nurse Association reported that among their home-bound patients they find elderly men and women, suffering from a variety of chronic diseases, living on diets which, as one nurse pointed out, provide fewer calories than were given to concentration camp inmates during World War II.

Other local reports further confirmed by national data where presented to us.

CDC data, based on records from 32 states on children from birth to four years enrolled in federally-funded programs, found a consistent increase in the prevalence of height for age below the fifth percentile until by age four the prevalence was as high as 16% for Hispanic and native American children.

A recent CDC report on infant mortality shows that the downward trend which has characterized the U.S. infant mortality rate over the past twenty years has now leveled off. We are no longer on the path set down by the Surgeon General in 1979 to bring the U.S. rate into line with rates of other comparably wealthy nations in this critical indicator of infant and childhood health. The CDC study, done at the request of a congressional committee, showed that infant mortality fell from 10.9 per 1,000 live births in 1983, to 10.6 per 1,000 live births in 1984, a negligible decline. Meanwhile, post-neonatal mortality actually rose.

My first hand experience with nutritional problems of the poor is not limited to the few weeks spent during these studies; however, mine is an everyday experience as we attempt to provide a wide range of health and health-related services to more than 26,000 poor in the City of Jackson and surrounding Hinds County, including WIC certification and nutritional counseling to 5,000 poor pregnant women, infants and children.

I have mentioned the Field studies in 1968 and 1977. Those conditions described among children in 1968 had vastly improved in 1977. It cannot be denied that the overriding factors contributing to these improvements were the combined benefits of the various food assistance programs put into place during the interim. This is not to say or to imply that poverty-related hunger and malnutrition no longer exist. It does exist. It is still widespread among the poor, with children and the elderly being particularly affected. For instance, as the number of individuals in poverty grows, the problems are sure to deteriorate, and without appropriate intervention we may soon find ourselves back to the conditions of 1967 and the numbers adversely affected in my state would be high.

For instance, there are 425,000 children participating in the school lunch program. Of these, 290,000 or 68 percent, receive their meals free or at reduced price, meaning they are from families in poverty. When we consider that poor children obtain one-third to one-half of their daily nutrients from school lunch, we can readily see the potential negative impact of those who may no longer be able to afford these meals due to cutbacks and changes in eligibility requirements.

Some might argue that the difference will be made up at home. This is just not the case. From our own first-hand experience, we find that 70 percent of the 5,000 individuals, mostly children, which we certify annually for the WIC Program, have—home dietary—histories deficient in Vitamin A and Vitamin C. Forty-five percent are deficient in iron, and 30 percent in protein. In those children three to five years of age, 15 percent are deficient in calcium. And, as we interviewed family after family recently and looked in their refrigerators and on their pantry shelves toward the end of the month, we could easily determine the reason—not enough food.

Members of the panel, in closing I ask that you give serious consideration to immediately increasing the amount of funds for the various nutrition support programs, all of them—food stamps, WIC, school breakfast, and school lunch. I say increase them all because it is obvious to many of us that one meal, or even a portion of a meal, can make a difference between a child who is healthy, happy and capable of learning and developing into a productive citizen, and one who is hungry and malnourished, apathetic and vulnerable to sickness and disease and possibly a shortened lifespan.

Thank you very much.

PREPARED STATEMENT OF KATHERINE K. CHRISTOFFEL, M.D., M.P.H., ASSISTANT PROFESSOR OF PEDIATRICS AND COMMUNITY HEALTH AND PREVENTIVE MEDICINE, NORTH-WESTERN UNIVERSITY MEDICAL SCHOOL, CHICAGO, IL

CASES OF SEVERE PRIMARY MALNUTRITION IN U.S. CHILDREN INDICATE AN URGENT PROBLEM REQUIRING SURVEILLANCE AND CORRECTION

Chairmen and committee members, (slide 1). This happy well-nourished baby was photographed after successful treatment for a serious medical problem.

(Slide 2).

This photograph shows the same infant before treatment, with severe nonorganic failure to thrive.¹

Nonorganic failure to thrive is a disturbance in growth without any demonstrable medical cause, and is familiar to all pediatricians in the United States. Often called environmental deprivation, it has been associated with a range of feeding problems, from errors in formula preparation to deliberate neglect. The diagnosis of failure to thrive (FTT) is based on body measurements which deviate from normal, E.G. extremely low weight compared to normal children of the same sex age and sex. The assessment that FTT is nonorganic is based on absence of explanatory medical conditions and on resumption or normal growth in response to adequate feeding. Despite these definitions and although we can plainly see the severe wasting in this infant, it is not traditional to assess or describe these infants in nutritional terms. As a result, children with severe FTT are not commonly considered to be examples of malnutrition. The plight of these children has therefore not drawn the attention, investigation or corrective action that any evidence of malnutrition in America should receive.

I will show pictures of 3 more infants with severe nonorganic FTT.

(Slide 3, 4, 5).

Their histories are summarized in an attachment to my prepared testimony.

(Slide 6).

Motivated by cases like these, my colleagues and I did a retrospective study of cases of nonorganic FTT at our hospital over a 4½ year period.

(Slide 7).

For nutritional descriptions, we used the welcome trust definitions of protein calorie malnutrition, which are widely used around the world.

(Slide 8).

We were able to document 16 cases of severe malnutrition in children 18 months old or younger. This is a minimum estimate of the number of such cases seen at our institution during the period surveyed. As you can see, most of the children were poor and from large families. The time pattern of occurrence suggested that these cases were increasing in number during the study period. However, because there are approximately 80 hospitals in Chicago, we do not know how many such cases were seen elsewhere. For the same reason, these 16 cases unfortunately indicate that there are unknown numbers of other children with malnutrition of similar severity. Such cases do not appear in nutrition surveillance statistics from WIC and public health clinics because the children who become so severely affected have generally not received the services offered by such clinics.

The obvious question is why are these children malnourished? In the cases whose photos I have shown and in the series of 16 cases, it usually remained unclear. Most of the children were not enrolled in WIC, again for unclear reasons. The families had not recently arrived in the area and all spoke English. Since most were on public aid and had a number of children, the existence of these families and their generally needy circumstances were surely known to a variety of agencies; yet they were not enrolled in WIC. This suggests to us that WIC is sometimes inaccessible to children in great need of it. Mothers often tell us that they face bureaucratic hurdles which delay their receiving food. They report being turned away from WIC if they arrive at the wrong time, at the wrong office, or without each of a variety of required forms. (This may make it particularly difficult for those most in need. For example, residents of a condemned building generally cannot provide acceptable proof of address.) Rescheduled appointments may occur too late to prevent babies from becoming ill. These mothers and occasional candid WIC workers, convey the impression that because WIC resources are not sufficient to provide for all eligible families, bureaucratic requirements are used as means of rationing.

¹ These two slides are taken from an American Academy of Pediatrics—AAP—teaching program and shown with AAP permission.

Clearly this is a complex matter. It is widely recognized that severe family dysfunction can result in a child's not being fed and that the child will thrive in foster care. It is less widely acknowledged that obstacles to a family's obtaining food can also result in a child's not being fed. A child from a functioning family, whose social position prevents access to food, will thrive in a better situated foster home. In most cases, it is probably the interaction of difficulty of access to critical services and some degree of family dysfunction that results in severe malnutrition. It is our custom to attribute such problems to the family's neglect. It is necessary to recognize that dire consequences may result from a lesser degree of neglect when food and social services are difficult to obtain.

Making food easily accessible to families in need is a venerable goal of WIC and related programs. Cases like those presented indicate that that goal is not universally achieved. Stated more badly, nutritional assessment and description of children with severe nonorganic FTT makes it clear that they are, in fact, starving. Their malnutrition makes them ill and endangers their futures. The existence of one starving child in America is unacceptable in itself and indicates that more are suffering to a lesser degree. A way must be developed—and quickly—to assess the prevalence and causes of this problem.

I urge the Congress to mandate that malnutrition become a reportable condition, along with polio and other preventable severe medical conditions.

Finally, shouldn't food supplement programs be restructured to assure that all children in need receive adequate food, even if their parents which make it difficult to comply with rules and regulations?

Thank you for your attention.

CASE SUMMARIES

Patient 1 is a white male who was transferred to our hospital at 2 months of age for evaluation and treatment of failure to thrive.

Birth weight was reported to have been 6 lbs. 11 ounces; weight on admission to our hospital was 5 lbs. 13 ounces. Anthropometric measurements indicated that this was below the 5th percentile for age and length and 51% of the expected weight for his age (marasmus). Length and head circumference were also below the 5th percentile for age. His fat and muscle tissues were severely depleted. There was no evidence of underlying organic disease or of physical abuse. Developmental evaluation indicated some delays. He gained weight in the hospital at a rapid of about 1 ounce per day on formula feedings.

There were 3 other children in the family. The 22 year old mother and the father were reported to be alcohol abusers. WIC status and further medical and social history were not available.

Patient 2 is a black female who presented to the emergency room at the hospital of her birth at 4 months of age "dehydrated and lethargic with shallow respirations, no crying." She had a 2 day history of a cold without vomiting or fever, and a 3-4 day history of diarrhea. She was in shock and her pulse rate was dangerously slow. Her temperature was too low to measure. After intubation and resuscitation in the ER, she was admitted to the intensive care unit.

Birth weight was 6 lbs. 3½ ounces; weight on admission was 6 lbs. 9 ounces. This was below the 5th percentile for age and length and 46% of the expected weight for age (Marasmus). Length and head circumference were also below the 5th percentile. Her serum albumin was borderline, and she developed edema. Her diagnosis was thus marasmic kwashiorkor.

The infant had anemia, evidence of liver insufficiency, and persistent hypoglycemia. She required artificial ventilation for one day. She had evidence of delayed gross motor development. She had no evidence of physical abuse. She was discharged 2 months after admission, weighing 11 lbs. 9 ounces. Six weeks later, she weighed 15 lbs. 9 ounces, but still had evidence of developmental delay.

The large extended family of this baby lived in a condemned building, without heat or running water. She had had one clinic visit, at 2 months of age.

Patient 3 was 3 months old when he was first admitted to our hospital after referral from an outlying hospital. He was born after a pregnancy complicated by prescribed medication and an attempt to induce abortion. He weighed 7 lbs. 4 ounces at birth. He fed poorly as a newborn and so was hospitalized for 3 weeks after birth. At 2 months of age his weight was 8 lbs. 6 ounces. He had a brief viral illness prior to his admission to our hospital.

On admission, he weighed 7 lbs. 13 ounces. The weight was below the 5th percentile for age and length, and 59% of expected weight for age (marasmus). He evidenced severe wasting, delayed development, and muscle spasticity suggestive of cer-

bral palsy. No medical cause was found for his problems. He was discharged after a 1 month hospitalization during which he gained almost one pound. His mother was instructed concerning the special feeding techniques he required. A number of community services were arranged.

He was readmitted 6 weeks later weighing 7 lbs. 4 ounces, extremely wasted (44% of expected weight for age). His mother had not brought him for scheduled followup medical visits. During his one month hospitalization he gained more than 2 pounds. He has been in foster care for over a year now. He has had some medical problems and is still somewhat developmentally delayed, but no longer evidences spasticity. It remains unclear to this day to what extent development problems impaired his growth and to what extent his poor growth impaired his development.

This baby's mother was 17 years old at the time of his birth, at which time she already had another child 2 years old. It was reported to us that she and her children lived in substandard housing with a number of relatives, most of whom had young children. She had migrated to our area about 6 months before the patient's first hospitalization and was on public aid. She was not on WIC. She had little contact with patient 3 during his neonatal hospitalization, in part because of difficulty arranging transportation and babysitting.

CLASSIFICATION OF SEVERE PROTEIN-CALORIE MALNUTRITION¹

Marasmus: $\leq 60\%$ of expected weight for age without edema or hypoalbuminemia.

Marasmic-Kwashiorkor: $\leq 60\%$ of expected weight for age with edema or hypoalbuminemia.

Kwashiorkor: 60-80% of expected weight for age with edema or low albumin.

Classification for infantile malnutrition, editorial in *Lancet* 1973; 2:87-88: 16 cases of severe primary malnutrition; 1 marasmic kwashiorkor, 11 marasmus, 4 at least marasmus; 9 in last 20 months of study period; 8 B, 5 W, 3 H; no recent migrants to area; 11 Public Aid, 1 commercial insurance, 4 self pay; 3/13 enrolled in WIC; 1/15 firstborn; 6/15 recent additions to sibships > 4 ; mean age 8.3 months; mean weight 4.33 kg.

PREPARED STATEMENT OF WILLIAM H. DIETZ, JR., M.D., PH.D., ASSISTANT PROFESSOR OF PEDIATRICS, TUFTS UNIVERSITY SCHOOL OF MEDICINE AND DIRECTOR, CLINICAL NUTRITION, DEPARTMENT OF PEDIATRICS, NEW ENGLAND MEDICAL CENTER, BOSTON, MA

Mr. Chairman, Committee and Subcommittee members, and guests. I am honored by the opportunity to discuss with you the physiological consequences of undernutrition in children. This morning I will briefly discuss with you the effects of maternal nutrition on infant birth weight and the effects of undernutrition in infants and children on growth, behavior, cognitive development, susceptibility to infection, and mortality.

Undernutrition in children may begin with undernutrition of the mother. During the Dutch famine of World War II it became clear that maternal undernutrition produced an increased prevalence of low birth weight and premature infants. Although undernutrition in the United States is not as prevalent or severe as that observed during famines, even here the nutritional status of the mother has a major impact on the birth weight of the infant. Numerous studies have shown that pre-pregnant height and weight gain during pregnancy are positively correlated with birthweight. The pregnant mother can only support optimal growth of her fetus if her own nutritional status is adequate. The consequences of low birth weight and prematurity are often abnormal physical and intellectual development, and learning disabilities. Undernutrition in infants and children characteristically progresses from acute to chronic. The earliest response to undernutrition is a reduction in activity, which allows the individual to preserve energy for growth and other vital functions. If undernutrition persists, the rate of weight gain is reduced. Later in the course, the rate of growth in height is also reduced. Therefore, early or acute undernutrition is accompanied by a deficit in the weight expected for a child's height. Chronic or longstanding undernutrition is characterized by a deficit in both weight and height, but weight may be appropriate for the reduced height. Simply stated, acutely malnourished children are thin, and chronically malnourished children are short but appear normally proportioned.

¹ Based on Wellcome Trust Classification.

These alterations in growth provide the justification for the use of weight for age, height for age, and weight for height as indicators of nutritional status. However, in terms of morbidity, alterations in functions other than growth are the more important effects of undernutrition.

As I have already told you, children with mild to moderate undernutrition display reduced activity. They also show excessive irritability, low tolerance of frustration, and are unresponsive to social stimulation. These characteristics have two results. First they impair the ability of affected infants or children to elicit effective and supportive interactions. Second, they stifle efforts to stimulate or refeed affected patients. As a result undernutrition persists or deteriorates further. The behavioral consequences of undernutrition emphasize that therapy must include both nutritional and psychosocial interventions. The longer term implications of such disordered social interactions is that they inhibit the development of interpersonal skills, and reduce the likelihood of social and emotional competence in later childhood.

Cognitive development is also affected by undernutrition. In poor populations, children with chronic undernutrition do poorly in school, and attain lower scores on standardized achievement tests, especially those of language ability. In the United States, these psychosocial sequelae of mild to moderate undernutrition help to perpetuate the cycle of poverty, and may contribute to undernutrition in future generations.

As I mentioned earlier, undernutrition may also be accompanied by a reduction in the body's resistance to infection. Infections frequently cause a loss of appetite, increase energy requirements and increase nutrient losses, all of which promote a further deterioration in nutritional status. Therefore a vicious cycle is established in which undernutrition predisposes to infection which contributes to further undernutrition, and ultimately to mortality.

Several studies conducted in the developing world suggest that the frequency and severity of illnesses such as diarrhea are directly related to the severity of undernutrition. Although the degree of undernutrition may be more severe in the Third World than in the United States, such studies have also demonstrated that the severity and duration of several different infections are increased in mild or moderate undernutrition. Studies of the infectious sequelae of mild or moderate undernutrition in the United States have not been performed.

Despite the absence of reliable data regarding the morbidity of mild to moderate undernutrition in the United States, the alterations in protein and energy reserves that accompany undernutrition could be expected to pose a greater hazard under several different circumstances. Based on the experience in adults, moderate malnutrition in children will increase the frequency of infection or death following major surgery or trauma, both of which impose a significant stress on nutrient reserves. Moderate malnutrition complicates routine patient management, and increases both the duration and costs of hospitalization.

Malnutrition in the Third World is associated with a high rate of infant mortality. Until recently, I would have said that there was little evidence that mild to moderate undernutrition in the pediatric population of the United States influenced infant mortality. However, rises in the rate of infant mortality in Boston and elsewhere have recently been demonstrated. Such increases have coincided with increases in the prevalence of undernutrition. Therefore, we cannot complacently dismiss the possibility that undernutrition increases infant mortality rates in the United States, just as it does in the developing world.

In summary, undernutrition clearly exists within our population. It is a cross-generational problem in which the nutritional status of the mother is a critical determinant of the infant's nutritional status at birth. Although alterations in growth are the means used to identify and characterize the severity of undernutrition, more important consequences are the effects of undernutrition on activity, learning and the severity and duration of infection. The effects of undernutrition on cognitive development suggest that our therapeutic efforts must include both nutritional and psychosocial support. The persistence of undernutrition in our population emphasizes the need for continued support of those nutritional programs specifically directed toward the poor.

PREPARED STATEMENT OF ERNESTO POLLITT, PH.D., PROFESSOR OF NUTRITION AND BEHAVIORAL SCIENCES, SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER, HOUSTON, TX

My testimony at this Congressional hearing concerns the health consequences of hunger and malnutrition upon infants and children in the United States. I was re-

quested to address the issue of the effects of iron deficiency anemia and of fasting on children's learning potential.

Three major national surveys, the Preschool Nutrition Survey (PNS), the Ten State Nutrition Survey (TSNS), and the first National Health and Nutrition Examination Survey (NHANES I)—conducted between 1968 to 1974—established iron deficiency and anemia among infants and young children as a serious public health concern.¹ None of the three surveys, however, included comprehensive assessments of the iron status of the subjects examined.^{2,3}

In contrast, the second National Health and Nutrition Examination Survey (NHANES II) conducted from 1976 to 1980, on a sample representative of the United States population, made fairly extensive assessment of the iron status of the subjects under study. Recently completed estimates of prevalence, using these data, have focused specifically on impaired iron status rather than on the more global hematological problem of anemia. Three statistical approaches were used to estimate prevalence rates which ranged from 9.2 to 9.4 percent for the one-to-two year old; from 3.6 to 5.5 percent for the three-to-four year old, and from 3.2 to 4.5 percent for the five-to-ten year old children.

Comparisons between previous estimates and more recent ones (based on NHANES II) suggest that the prevalence of iron deficiency and anemia declined from the period of the late-1930s early-1970s to the late-70s. More recent data (1982) from the pediatric nutrition survey from the Center for Disease Control⁴ suggest that, among low income children, the prevalence of low hemoglobin (percent below 5th percentile)—which is indicative of anemia—is higher than the estimates derived from NHANES II. Among white and black children two-to-five years old the number of cases with low Hgb were 6.1 and 12.4 percent respectively. Within the six-to-nine year group the respective estimates were 5.2 and 11.0 percent. The epidemiological information from the CDC pediatric nutrition surveillance, however, lacks the methodological rigor of the NHANES II data.

Even using the most auspicious epidemiological estimates, the conclusion from this information must be that infants up to 2 years of age are particularly at risk of developing iron deficiency anemia. During this age period iron deficiency is generally related to a dietary intake inadequate to meet increased iron requirements. Moreover, the recent data from the nutrition surveillance of the Center for Disease Control suggests that—in low income preschool and school age children—the prevalence of low Hgb values is higher than the estimates made in the late 70s which were based on a representative sample of the US population.

A majority of the results from relevant experimental studies conducted in the United States, Israel, Guatemala, Indonesia and Egypt⁵ over the last decade indicates that iron deficiency with and without anemia interferes with cognitive functioning. Among school age children iron deficiency might be an obstacle to school achievement. Experimental study designs controlled for related effects of socioeconomic factors as well as possible related illness or other nutritional deficiencies, and have confirmed that the cognitive deficits observed among iron deficient children were due to this particular nutrient deficiency and were not mediated by confounding factors.

Specifically, iron deficient infants obtain lower scores than iron replete subjects of the same age in scales of mental development. Intramuscular administration of age-

¹ In both the PNS and the NHANES I the prevalence of anemia (defined by low hemoglobin (Hgb) values) for one-to-five year-old children was calculated to be 12 percent for blacks and 7 percent for white. In the TSNS the prevalence for this same group was 25 percent for blacks and 14 percent for whites. The PNS and the NHANES I include samples which were representative of the U.S. population. On the other hand, the TSNS used a sample which was biased toward low income sectors of the population; this survey has as an objective the assessment of the incidence and location of malnutrition in the United States.

² Pilch, S.M. & Senti, F.R. (Eds). Assessment of the iron nutritional status of the U.S. population based on data collected in the second national health and nutrition examination survey, 1976-1980. Life Sciences Research Office Federation of American Societies for Experimental Biology. Bethesda, Md. 1984.

³ Owen, G. et al. Pediatrics, 1974, 53, 597. Ten State Nutrition Survey in the United States, 1968-1970. Dept. Hlth. Educ. Welf. Publ. No. (HSM) 72-8130. 1972. Preliminary findings of the First Health and Nutrition Survey, United States, 1971-1972: Dietary and biochemical findings. Dept. Hlth., Educ. Welf. Publ. No. (HRA) 74-1219. 1975.

⁴ Centers for Disease Control Nutrition Surveillance. Annual Summary 1982. U.S. Department of Health and Human Services.

⁵ Oski, F.A. et al. J. Pediatr, 1978, 92, 21. Oski, F.A. et al. Pediatr, 1983, 71, 877. Lozoff, B., et al. J. Pediatr 1982, 191, 948. Pollitt, E. et al. Nutr & Beh 1983, 1, 137. Soemantri, AG, et al. Iron deficiency anemia and educational achievement. INACG, Bali, Indonesia 1984. Paliti, H., et al. Early Hum Devel, 1985, 19, 217.

appropriate dosages of iron to the iron deficient infants results in significant improvements in the developmental scales scores. The initial differences between iron depleted and iron replete infants disappear after a therapeutic intervention. Among preschool children iron deficiency has also been associated with deficits in attention and in learning new concepts in problem solving situations. In these cases—as among infants—the deficits in cognition disappear following controlled and age appropriate treatment with iron. School children with iron deficiency have also obtained lower educational achievement test scores than iron replete subjects. Following iron repletion their achievement scores increased significantly above those of iron deficient children treated with a placebo. Iron deficiency among nine-to-ten year old children has also been related to deficits in attention and in concentration; these deficits, however, disappear following treatment. The significance of these findings are obvious given that the scholastic progress of the iron deficient child is in jeopardy.

The biological reasons for the cognitive deficits observed in the iron deficient subject are unknown. Iron is an important cofactor in various brain enzymes and iron depletion might thus result in alterations of brain neurochemistry. Alternatively, iron deficiency may have systemic effects which reduce the level of alertness of the organism and therefore may have an adverse influence on attention. In conclusion, although there is still much to learn about the functional consequences of iron deficiency the available evidence clearly shows that iron deficiency is detrimental to a child's intellectual development.

I now turn to the second issue of my testimony. Recent investigations of the cognitive effects of skipping breakfast in school age children provide experimental data relevant to the educational benefits of the school feeding programs. An evaluation of the national school feeding program published in 1984 under the auspices of the Department of Agriculture estimated that three-million children in the United States who now skip breakfast would not do so if the break program were available to them.⁶

An eighteen-to-twenty hour overnight fast has an adverse influence on a child's performance in problem solving situations which tap abilities invoked in the classroom setting.⁷ This decrement in performance has been associated to glucose and insulin changes resulting from the fasting condition. These biochemical changes, are not indicative of deficits in the utilization of brain fuel but they do suggest a physiological basis for the transient intellectual deficits observed. These recent experimental data are in keeping with previous reports based on weaker study designs which had shown that consuming breakfast may enhance a child's performance during the morning in reading and in the solution of arithmetic problems.

PREPARED STATEMENT OF HON. BILL EMERSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

As some of you may know the Subcommittee on Domestic Marketing, Consumer Relations and Nutrition has held several field hearings across the country concerning federal food assistance programs and whether they are helping the needy in our country. One of the hallmarks of the Subcommittee hearings is the nonpartisan nature with which we have looked into these programs and the problems that affect the poor, with an eye toward resolution of the problems before us—not political gain. We may not always agree on solutions to the problems in programs for which the Subcommittee carries responsibility; but we do agree on the requirement to look at these issues with care and deliberation. I might say there are others involved in this issue who could learn from how the Subcommittee operates. The issue of hunger in America and how federal food assistance programs help can be made into a very political issue.

Nevertheless, hunger in America and solutions to the problem must be solved in a bipartisan manner. In the past our Subcommittee has studied the hunger issue on this basis. We have had field hearings, we have received testimony from many witnesses and as a result of that effort the temporary surplus commodity distribution program was extended for two years. We also collaborated on a bill to increase work incentives for food program participants; the adequacy and access of food pro-

⁶ Gale, SK. et al. Symposium on National evaluation of the school nutrition programs. *Am J Clin Nutr* 1984, 40,363 (Supplement).

⁷ Pollitt, E. et al. *Am J Clin Nutr* 1981, 34, 1526. Pollitt, E., et al. *J Psychiat Res*, 1982/83, 17, 169.

gram benefits; program accountability; and, efforts to provide nutrition education for low-income persons.

We worked together on those pieces of legislation—just as we worked together during the 97th Congress to achieve some necessary reforms in this program. If we really want to deal with this issue of needy people and how to help them we must continue to work on this issue in a nonpartisan way. I hope we can.

Today the Select Committee hearing will look into the effects of hunger on infant and child health and, I hope, the responses of all levels of government—federal, state and local—and the private sector to the problems generated by the lengthy recession and high unemployment rates. I firmly believe that in our nation of abundance it is a tragedy for one child, one elderly person—for anyone to go hungry.

There are many across the country responding to the needs of their neighbors and other human beings. I see it in my own home town, in my church and in the news media. I bring this up to point out that there is a vast amount of assistance being provided to the needy by the private sector—without government involvement—and I believe our Subcommittee hearings and perhaps the Select Committee hearings have been a step to bring this to light.

I believe this is an appropriate response by the private sector. The Federal food assistance programs have an appropriate place in the provision of assistance; but, private sector involvement in this issue has been around a long, long time and provides considerable assistance—probably in a kinder, more humane manner—than federal, state or local programs. For example, the latest report on donations made by Americans to charitable organizations demonstrates the commitment this country has to helping other people. This report states that in 1983, \$74.25 billion was donated. Of this, \$61.55 billion was donated by individual citizens. Americans have recognized the need to help their fellow citizens and increased their donations by significant amounts from year to year. (New York Times, May 17, 1985)

The government programs—and I will discuss only the federal ones—provide the major amount of food assistance to people in need. The Federal government spent a total of \$19.6 billion dollars in fiscal year 1984 for food assistance programs. In fiscal year 1980 the federal government spent \$14 billion. So you can see there is an increase of over \$5 billion in a four year period. Part of this cost is the food stamp program, the major food assistance program for low-income individuals and families. In 1980, \$9.1 billion was spent on food stamps. In 1984, 12.4 billion was spent for this program. Again a growth in both the money spent on the program and the number of people receiving benefits. The food stamp program is designed to be responsive to rising unemployment and the recession and it has responded over the years.

In addition to the federal food assistance programs, surplus commodities are distributed to people in need. However, because of high unemployment rates—still felt in parts of the country—the past recession and the fact that surplus commodities are being stored by the federal government, I believe these surplus commodities should be made available to people in need. The Committee will be looking at this program over the next few weeks to see whether it should be continued and if so, in what manner.

Under the legislation passed by the Congress and the initiatives of the Department of Agriculture over one billion pounds of staple foods—such as cheese, butter, rice and flour have been distributed for use by individual households. Since July, 1983 over 107 million pounds of canned foods—such as chicken, beef, tuna, pears and sweet potatoes have been distributed for use by these households.

All this is in addition to the 1.8 billion pounds of surplus food that is distributed each year to schools, nursing homes, hospitals, elderly feeding centers and other charitable institutions.

My point is simply this—food assistance is provided by both the private sector and all levels of government in considerable quantities—and is quantities of dollars and food that have grown over the years. If this assistance is not preventing nutritional problems we need to know this. However, we need facts—not opinions, solutions—not rhetoric.

I hope our witnesses today will be able to tell us what they identify as the problems; if and why current efforts are not solving these problems; and, then what should be done to resolve these problems. Our witnesses should base their analysis of problems and their proposed solutions on facts—measurable data.

I believe we all realize that the issue of hunger in America is a complex one. It is much broader than food assistance programs or the surplus commodity distribution program. The choices families make on how and when to spend the funds available to them depend on where they live, the cost of housing and utilities, the job market and other variables. Two families with identical income and expenses will choose to

spend the money in different ways—one able to save and another barely able to make ends meet. My point is this—we cannot hope to resolve the problem of hunger in America by pointing fingers, casting aspersions on the characters of others and generally offering in accurate or misleading information in rebuttal to what some perceive to be solutions to this problem.

Thank you, Mr. Chairman.

